

**STAFF OF THE DEPARTMENT OF PUBLIC SERVICE
INTERROGATORY/DOCUMENT REQUEST**

United Water New York

Request No.: Staff 17 CGS 17
Requested By: Christopher Simon
Date of Request: January 7, 2016
Response Due: January 18, 2016
Response Date: January 19, 2016
Witness: Christopher Graziano
Subject: Staff 14 CGS 14 - Suez Charges

Reference to Company response to Staff 14 CGS 14 Appendix A.

1. Provide supporting documentation for all Authorizations/Administrative Change Orders presented in Appendix A, supporting that proper authorization was given and pertinent internal controls were followed.
2. Please provide supporting documentation that was provided to executives in order to gain approval for the change orders (e.g. status reports/updates/cost projections)
3. What was the Company's justification for continuing to approve tasks through a change orders versus through a competitive bid process?

Response to 1:

Copies of the authorizations/administrative change orders are attached as Appendix A.

The scope and performance of CDM Smith's technical consulting services for the Haverstraw Water Supply Project ("HWSP") were governed by the Professional Services Agreement dated November 13, 2009 ("PSA"), which was previously provided in response to IR CGS-12 (starting on page 32 of Appendix A thereto). As set forth in Section 10.2 of the PSA, Sameet Master, the project manager for the HWSP and a licensed professional engineer, was one of United Water New York Inc.'s ("UWNY") two authorized representatives under the PSA. In that capacity, Mr. Master was authorized to provide information, instructions, and approvals to CDM Smith on UWNY's behalf - including each of the

authorizations/administrative change orders included in Appendix A. Mr. Master provided task-by-task directives to CDM Smith pursuant to the verbal authorizations he received from his significant and regular interactions with executive and senior management of United Water - all of which ensured that proper internal controls were followed. The extraordinarily heightened oversight of the HWSP by United Water's executive and senior management was explained in previous IR responses (including response 6(b) to IR CGS-4 and response 4 to IR CGS-6) and is also discussed further in response 2 below.

Response to 2:

Responsive documents are attached as Appendix B.

As previously explained by United Water, due to the size, scope, and time sensitivity of the HWSP, United Water's executive and senior management exercised heightened oversight of the HWSP throughout its nine-year history. Eventually, in an effort to ensure compliance with the Commission's orders and/or any subsequent directives, there was almost daily oversight of the HWSP at the highest levels of the company. Mr. Master provided regular updates to executive and senior management regarding the status and finances of the HSWP - and management provided direction to Mr. Master on all significant matters (as evidenced by the documents included in Appendix B). This robust oversight over all aspects of the HWSP by upper management included the authorizations/administrative change orders to CDM Smith.

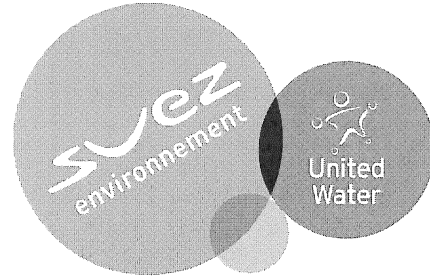
Response to 3:

While the amount of the administrative change orders is significant compared to the authorized tasks contemplated in the PSA, the vast majority of the administrative change orders (change orders nos. 1-6) were modifications to the tasks contemplated in the PSA and incurred in the wake of the increasingly ad hoc governmental processes (as discussed in United Water's response to IR CGS-14). Competitive bidding of these change orders would have further prolonged the already delayed permitting process. In addition, competitive bidding would have created logistical challenges in the event CDM Smith was not the successful bidder, with another firm (assuming other firms submitted bids) performing a portion of the same scope that CDM Smith had already completed - which likely would have led to further delays and increased costs.

Appendix A

Sameet Master
Project Manager

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November 13, 2009

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
100 Crossways Park Drive West
Suite 415
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's proposal for the Design and Engineering ("D&E") Services for the Haverstraw Water Supply Project ("HWSP"). CDM is authorized to proceed with the development of the 10% design to support advancement of the Draft Environmental Impact Statement in accordance with the D&E Services Agreement, not to exceed one hundred thousand dollars (\$100,000).

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

A handwritten signature in black ink, appearing to read 'Sameet Master'.

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

Sameet Master
Project Manager

UNITED WATER

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February 4, 2010

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
100 Crossways Park Drive West
Suite 415
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's proposal for the 2010 Design and Engineering ("D&E") Services for the Haverstraw Water Supply Project ("HWSP").

CDM is authorized to proceed with the following tasks detailed in the attached table in accordance with the D&E Services Agreement, not to exceed three million one hundred twenty seven thousand five hundred fifty six dollars (\$3,127,556) for 2010. This brings the total authorization for the Project to three million two hundred twenty seven thousand five hundred fifty six dollars (\$3,227,556).

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

**United Water New York – Haverstraw Water Supply Project:
Design and Engineering Services
2010 D&E Authorization**

Item	Scope Sec.	Description	Amount	2010 Amount
1		Design and Engineering (D&E)		
1.1	7.1 7.2 7.6 7.11.1 7.12 7.13	Cost to advance the design to the ten percent (10%) completion level:	\$ 1,152,802	\$ 1,152,802
1.2	7.1 7.2 7.6 7.11.1 7.12 7.13	Cost to advance the design to the thirty percent (30%) completion level:	\$ 884,917	\$ -
1.3	7.1 7.2 7.6 7.11.1 7.12 7.13	Cost to advance the design to the fifty percent (50%) completion level:	\$ 966,452	\$ -
		D&E Subtotal:	\$ 3,004,171	\$ 1,152,802
2	7.3	Design and Engineering Services: Administration and Management		
2.1	7.3.1 7.3.2 7.3.4 7.3.5 7.3.6 7.3.7	Cost to administer and manage the D&E Company's Scope through the completion of D&E Phase 5, September 30, 2011:	\$ 741,640	\$ 386,943
2.2		Intentionally Omitted.		
2.3	7.3.3	Cost to conduct Design Reviews for 10%, 30%, and 50% design completion (\$/review):	\$ 100,000	\$ 100,000
2.4	7.3.8	Cost implement, host, maintain and update a document tracking program through the completion of D&E Phase 5, September 30, 2011:	\$ 245,024	\$ 127,839
2.5		Intentionally Omitted.		
		Design and Engineering Services: Administration and Management Subtotal:		\$ 614,781
3	7.4	Environmental Impact Statement (EIS) Support		

Item	Scope Sec.	Description	Amount	2010 Amount
3.1	7.1.2 7.4	Additional cost, in addition to Item 1.1 above, to complete D&E Phase 2: Design	\$ 168,254	\$ 168,254
3.2	7.1.4 7.4	Additional cost, in addition to Item 1.2 above, to complete D&E Phase 4: Design	\$ 40,972	\$ -
		EIS Support Subtotal:	\$ 209,226	\$ 168,254
4	7.5	Permitting		
4.1	7.5.4	Additional cost, in addition to Item 1.1 above, to support obtaining the permits or approvals associated with the JPA, WSP, and FCAF:	\$ 48,859	\$ 48,859
4.2	7.1.3 7.5.3 7.12.3	Additional cost, in addition to Item 1.1 above, to complete D&E Phase 3: Design and engineering required to submit the local land use permit applications to the Town of Haverstraw to initiate the Site Plan approval process:	\$ 223,564	\$ 223,564
4.3	7.5.3 7.5.4	Additional cost, in addition to Item 1.1 above, to complete the design and engineering required to submit the all other permit applications (i.e. permit applications not included in Item 4.2 above) required by Scope Section 7.5.3 and 7.5.4:	\$ 317,872	\$ -
4.4	7.1.5 7.5 7.12.3	Additional cost, in addition to Item 1.3 above, to complete D&E Phase 5:	\$ 26,058	\$ -
		Permitting Subtotal:	\$ 616,353	\$ 272,423
5	7.7	Pilot Study		
5.1	7.7.1 7.7.2	Cost to provide technical support to the Pilot Study operations and prepare the Phase 1 Pilot Study Report:	\$ 52,347	\$ 52,347
5.2	7.7.1 7.7.2	Cost to provide technical support to the Pilot Study operations and prepare the Phase 2 Final Pilot Study Report, after Completion of Pilot Optimization, for Submission to NYSDOH:	\$ 104,694	\$ -
5.3	7.7.3	Cost to operate and maintain the Pilot Study (\$/month):	\$ 48,867	\$ -

Item	Scope Sec.	Description	Amount	2010 Amount
5.4	7.6	Cost for Possible Modifications to Pilot Study, including, but not limited to, Engineering, Permitting, Equipment Procurement, Construction, Startup, Testing and Commissioning, to test alternatives to the Baseline Process not included in the Draft Pilot Study Protocol which are proposed by the D&E Company:	\$ 39,104	\$ -
	7.7.4			
		Pilot Study Subtotal:		\$ 52,347
6	7.8	Water Quality Data		
6.1	7.8.2	Annual cost to operate and maintain the water quality buoy (\$/year):	\$ 101,268	\$ 101,268
6.2	7.8.3	Cost to obtain additional water quality data, that cannot be obtained through the Pilot Study:	\$ -	\$ -
		Water Quality Data Subtotal:		\$ 101,268
7	7.9	Site Assessment: Land		
7.1	7.9.1	Land Surveys		
7.1.1		Cost for Performing Land Surveys for the Intake Site:	\$ 25,187	\$ 25,187
7.1.2		Cost for Performing Land Surveys for the Raw Water Pipeline route from the Intake Site to the JRSTP site:	\$ 25,529	\$ 25,529
7.1.3		Cost for Performing Land Surveys for the JRSTP site:	\$ 26,524	\$ 26,524
7.1.4		Cost for Performing Land Surveys for the DSB site:	\$ 25,500	\$ 25,500
7.1.5		Cost for Performing Land Surveys for the WTP site:	\$ 28,790	\$ 28,790
7.1.6		Cost for Performing Land Surveys for the Finished Water Pipe Routes:	\$ 23,607	\$ 23,607
		Land Surveys Subtotal:	\$ 155,137	\$ 155,137
7.2	7.9.2	Geotechnical Investigations		
7.1.1		Cost for Performing Geotechnical Investigations for the Intake Site (Upland):	\$ 36,525	\$ 36,525
7.1.2		Cost for Performing Geotechnical Investigations for the Intake Site (Underwater):	\$ 139,795	\$ 139,795

Item	Scope Sec.	Description	Amount	2010 Amount
7.1.3		Cost for Performing Geotechnical Investigations for the Raw Water Pipeline route from the Intake Site to the JRSTP site:	\$ 20,266	\$ 20,266
7.1.4		Cost for Performing Geotechnical Investigations for the JRSTP site:	\$ 2,568	\$ 2,568
7.1.5		Cost for Performing Geotechnical Investigations for the DSB site:	\$ 2,568	\$ 2,568
7.1.6		Cost for Performing Geotechnical Investigations for the WTP site:	\$ 236,459	\$ 236,459
7.1.7		Cost for Performing Geotechnical Investigations for the Finished Water Pipe Routes:	\$ 18,834	\$ 18,834
		Geotechnical Investigations Subtotal:	\$ 457,015	\$ 457,015
7.3	7.9.3	Intentionally Omitted.		
7.4	7.9.3	Intentionally Omitted.		
8	7.1	Hydraulic Modeling		
8.1		Cost to perform Hydraulic Modeling and Assessment:	\$ 24,940	\$ 24,940
		Hydraulic Modeling Subtotal:		\$ 24,940
9	7.11	Sustainability & Energy		
9.1	7.11.2	Cost for Selection of Onsite Power Option:	\$ 59,444	\$ 59,444
9.2	7.11.2	Cost for Preliminary Design of selected Onsite Power Option:	\$ 183,740	\$ -
		Sustainability & Energy Subtotal:	\$ 243,184	\$ 59,444
10	7.14	Public Outreach		
10.1	7.14.1 7.14.2	Unit Cost for attending Public Meetings (\$/meeting):	\$ 8,757	\$ 43,785
10.2	7.14.3	Cost for preparing Public Outreach and Meetings materials (\$/meeting):	\$ 5,072	\$ 25,360
10.3	7.14.4	Cost to revise the Project website:	\$ 3,000	\$ -
10.4	7.14.4	Cost to operate and maintain a Project website (\$/month):	\$ 2,600	\$ -
		Public Outreach Subtotal:		\$ 69,145
Total				\$ 3,127,556
Prior Authorization				\$ 100,000
Total				\$ 3,227,556

Sameet Master
Project Manager

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April 19, 2010

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
100 Crossways Park Drive West
Suite 415
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's March 10, 2010 proposal for additional Design and Engineering ("D&E") Services (Change Order #01) for the Haverstraw Water Supply Project ("HWSP").

CDM is authorized to proceed with the following tasks in accordance with the D&E Services Agreement, not to exceed one hundred forty eight thousand nine hundred thirteen dollars (\$148,913). This brings the total authorization for D&E Services for the HWSP to three million three hundred seventy six thousand four hundred sixty nine dollars (\$3,376,469).

• Alternative Site Evaluation:	\$ 1,795
• White Papers:	\$ 32,565
• Alternative Raw Water Pipeline Routes:	\$ 91,605
• Water Demand Projections:	\$ 22,948
Total	\$ 148,913

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

A handwritten signature in black ink that reads 'Sameet Master'.

Sameet Master, P.E.
Project Manager

Cc: File

Kelly, Keith

From: Master, Sameet [Sameet.Master@UnitedWater.com]
Sent: Tuesday, December 28, 2010 9:25 AM
To: Kelly, Keith
Subject: Re: UWNY Pilot Operations Proposal

Approved.

From: Kelly, Keith [mailto:KellyKF@cdm.com]
Sent: Tuesday, December 28, 2010 09:06 AM
To: Master, Sameet
Subject: UWNY Pilot Operations Proposal

Sameet please respond to this e-mail approving the attached proposal for \$338,643 for the operations of the pilot facility.

Thanks

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100 Crossways Park West, Suite 415
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fax: +1 516 496-8864

December 2, 2010

Mr. Sameet Master
Project Manager
United Water
700 Kinderkamack Road
Oradell, NJ 07649

Subject: Haverstraw Water Supply Project
Pilot Study Operations Proposal

Dear Mr. Master:

CDM is pleased to provide this proposal for operations of the Haverstraw Water Supply Project Pilot Study. The work will include one full time Operations Engineer, a part time assistant Operations Engineer with a backup assistant Operations Engineer for when someone is on vacation and to assist when excessive sampling may be required. The three individuals will be fully trained on the operation of the pilot and will be involved in the weekly conference calls.

Scope of Work

The operations work will include the daily operation of the pilot including:

- Perform required bench tests/studies.
- Setting process parameters with the design engineers for each of the processes being tested.
- Collecting analytical grab and composite samples.
- Coordinating with the laboratory on the pickup and analyses of the samples.
- Maintaining the pilot equipment.
- Operation of the intake pump station including the air burst system.
- Process monitoring and data collection.
- Addressing issues with the process equipment manufacturers as they may arise.





Mr. Sameet Master
December 2, 2010
Page 2

Rental Equipment

CDM shall also supply the following rental equipment:

Hach DR2800 Spectrophotometer	\$275	per month	3 mths	\$825
Phipps & Bird Jar Test Apparatus	\$225	per month	3 mths	\$675
ISCO series 6700 composite sampler	\$100	per month	11 mths	\$1,100
Hach 2100P portable turbidimeter	\$228	per month	3 mths	\$684
Oakton desktop pH/MV/temp meter with ORP probe	\$182	per month	3 mths	\$546
YSI-556 Multi-parameter meter (DO/temp/conductivity/salinity/pH/ORP)	850	per month	3 mths	\$2,550
Total				\$6,380

CDM does not believe that renting the Met-One WGS-267 Portable Particle Counter is worth the \$1,700 per month costs and that this could wait for purchase of a field unit or be supplemented by lab samples.

Schedule and Budget

The work was initiated in October 2010 and is budgeted through October 2011. The cost to perform the pilot study work is as follows:

- Total labor: \$326,263
- Average monthly labor cost excluding October 2010 is \$26,469. October 2010 labor costs are \$8,637.
- Other direct costs: \$6,000 for hotel, tolls, mileage, flights, etc.
- Equipment rental costs as outlined above \$6,380.

Total costs: \$338,643





Mr. Sameet Master
December 2, 2010
Page 3

Labor for normal maintenance of the pilot equipment is included above however; costs for purchasing spare parts, electronics, piping etc. is not included.

CDM appreciates this opportunity to submit this Pilot Operations Scope of Work for consideration by UWNV. Please do not hesitate to contact me with any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "Keith Kelly", written over the printed name.

Keith Kelly
Partner
Camp Dresser & McKee

cc: K Smith



Proposed UWN Y Haverstraw Pilot Study Operational Costs

Year	Pilot Engineer	2010												2011				TOTALS
		O	N	D	J	F	M	A	M	J	A	S	O	J	J	A	O	
E Weintraub	HRS		72	160	148	168	168	184	176	168	144	160	184	168	176	168	176	2076
	Dollars	\$7,429	\$16,509	\$15,271	\$17,335	\$17,335	\$18,335	\$18,985	\$18,160	\$18,028	\$15,453	\$17,169	\$19,745	\$18,028	\$18,886	\$18,886	\$18,886	\$218,333
K Albert	HRS	8	128	136	128	128	128	72	96	96	104	96	96	96	96	96	96	1280
	Dollars	\$475	\$7,602	\$8,077	\$7,602	\$7,602	\$4,276	\$5,701	\$5,701	\$5,929	\$6,423	\$5,929	\$5,929	\$5,929	\$5,929	\$5,929	\$5,929	\$77,403
N Dubonawitz	HRS	8	48	48	16	16	16	48	16	16	48	16	16	16	16	16	16	328
	Dollars	\$733	\$4,399	\$4,399	\$1,466	\$1,466	\$4,399	\$1,466	\$1,466	\$1,525	\$4,575	\$1,525	\$1,525	\$1,525	\$1,525	\$1,525	\$1,525	\$30,527
MONTHLY TOTAL		\$8,637	\$28,509	\$27,746	\$26,402	\$26,402	\$27,660	\$25,327	\$25,327	\$25,482	\$26,450	\$24,624	\$27,199	\$25,482	\$26,341	\$26,341	\$26,341	\$326,263
		88	336	332	312	312	304	288	288	280	296	272	296	280	288	288	288	3684
ODCs		Monthly avg (not Oct)																
Weintraub	flight	400																
hotel	1800																	75287.28
milage	500																	10526.592
tools	500																	85813.872
Equipment rental:		6380																
total project cost:		\$338,643																

727324
858136

813136

Sameet Master
Project Manager

UNITED WATER

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August 24, 2011

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
100 Crossways Park Drive West
Suite 415
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's proposal for the 2011 Design and Engineering ("D&E") Services for the Haverstraw Water Supply Project ("HWSP").

CDM is authorized to proceed with the following tasks detailed in the attached table in accordance with the D&E Services Agreement, not to exceed one million six hundred twenty five thousand nine hundred seventy one dollars (\$1,625,971) for 2011. This brings the total authorization for the Project to five million three hundred forty one thousand eighty six dollars (\$5,341,086).

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

A handwritten signature in blue ink that reads 'Sameet Master'.

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

United Water New York
Haverstraw Water Supply Project
Engineering Costs

Activity	2011 Authorization as of 1-1-11	2010 Remaining Authorization as of 1-1-11	Incurred Thru 2010	Contract Upper Limit through 2010
Design				
10% Design			\$1,176,267	\$1,176,267
30% Design	\$884,917		\$470	
50% Design				\$0
Management				\$0
Project Management	\$360,000	\$8,802	\$384,720	\$393,522
Design Reviews		\$69,728	\$30,272	\$100,000
Document Management		\$109,561	\$40,278	\$149,839
EIS				\$0
Additional Design for DEIS Completeness		\$168,254		\$168,254
Additional Design for FEIS Completeness				\$0
Permitting				\$0
Support the JPA, WSP, and FCAF		\$46,614	\$2,245	\$48,859
Local land use permit applications initiate the Site Plan		\$200,012	\$23,552	\$223,564
All other permit applications				\$0
Obtain all permits and approvals (not bld)				\$0
Pilot				\$0
Phase 1 Pilot Study Report		\$27,784	\$24,563	\$52,347
Phase 2 Final Pilot Study Report	\$104,694		\$525	\$525
Water Quality Data				\$0
Annual cost		\$28,608	\$72,660	\$101,268
Annual cost	\$75,000			\$0
Survey & Borings				\$0
Survey		\$33,607	\$121,530	\$155,137
Borings	\$176,000	\$144,384	\$312,631	\$457,015
Alternative Routes		\$91,605		\$91,605
Hydraulic Modeling				\$0
FW Pipe Routes		\$21,302	\$3,638	\$24,940
Energy				\$0
Cost for Selection of Onsite Power Option:		\$13,269	\$46,175	\$59,444
Cost for Preliminary Design of selected Onsite Power Option:				\$0
Public Outreach				\$0
Public Meetings		\$35,738	\$8,047	\$43,785
Outreach and Meetings materials	\$25,360		\$26,608	\$26,608
Additional Items				\$0
Operations		\$269,068	\$69,575	\$338,643
Alternative site		\$3	\$1,792	\$1,795
Conservation Report			\$45,071	\$45,071
Nuclear issues			\$36,156	\$36,156
USGS		\$5,653	\$14,347	\$20,000
Sub-Total	\$1,625,971	\$1,273,992	\$2,441,123	
Contract Authorization Through 2010				\$3,715,115
Amount Remaining from 2010 Authorizations		\$1,273,992		
Incurred 2010 Costs			\$2,441,123	
2011 Authorization	\$1,625,971			
Total contract amount for 2011 as of 1-1-11		\$2,899,963		
New contract upper limit				\$5,341,086

Sameet Master
Project Manager

UNITED WATER

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December 28, 2011

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
60 Crossways Park Drive West
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's proposal for the 2011 Design and Engineering ("D&E") Services for the Haverstraw Water Supply Project ("HWSP").

CDM is authorized to proceed with the 50-percent Design task in accordance with the D&E Services Agreement, not to exceed nine hundred sixty six thousand four hundred fifty two dollars (\$966,452) for 2011. This brings the total authorization for the Project to six million three hundred seven thousand five hundred thirty eight dollars (\$6,307,538).

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

A handwritten signature in blue ink that reads 'Sameet Master'.

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

Sameet Master
Project Manager

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July 11, 2012

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
60 Crossways Park Drive West
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's change order letter dated June 21, 2012 for additional Design and Engineering ("D&E") Services for the Haverstraw Water Supply Project ("HWSP"), as follows:

Task	Contract / Authorized Amount	Approved Increase
1. Intake Material Coupon Testing.	-	100,000
2. Alternative Intake Location Evaluation and Preliminary Design.	-	120,000
3. USGS Reports Evaluation	-	35,757
4. Membrane Filter Procurement (now part of 100% design task).	-	63,189
5. River Sediment Soil Sampling requested by NYSDEC for Excavation and Fill Permit.	-	153,000
6. Analysis of blending of Distribution System water with HWSP Finished Water.	-	10,645
7. Virginia RO and Tray Clarifier visits for UWNY Operator	-	4,934
Total		487,525

The contract's upper limit total authorization for the Project shall be increased to seven million seven hundred thirty three thousand five hundred nine dollars (\$7,733,509).

CDM

July 11, 2012

Page 2 of 2

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

A handwritten signature in blue ink that reads "Sameet Master". The signature is written in a cursive, flowing style.

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

Sameet Master
Project Manager

UNITED WATER

700 Kinderkamack Road
Oradell, NJ 07649
TEL 201-634-4232
FAX 201-225-5125
Sameet.Master@unitedwater.com
WWW.UNITEDWATER.COM



July 11, 2012

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
60 Crossways Park Drive West
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's change order letter dated June 21, 2012 for additional Design and Engineering ("D&E") Services all ready incurred and invoiced for the Haverstraw Water Supply Project ("HWSP"), as follows:

Task	Contract / Authorized Amount	Change Order
3.1: DEIS Support	\$168,254	\$284,628
8.1: Hydraulic Modeling	\$24,940	\$19,759
5.3: Pilot Operations	\$338,644	\$236,356
4.1: Agency Permits	\$48,859	\$91,141
5.2: Pilot Reporting	\$104,694	\$265,590
Total		\$897,474

Additionally, since the NYSDEC has notified UWNY to prepare an Final Environmental Impact Statement, CDM is authorized to proceed with Task 3.2 with a not to exceed amount of forty thousand nine hundred seventy two dollars (\$40,972).

The contract's upper limit total authorization for the Project shall be increased to seven million two hundred forty five thousand nine hundred eighty four dollars (\$7,245,984).

CDM

July 11, 2012

Page 2 of 2

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

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Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

Sameet Master
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July 11, 2012

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
60 Crossways Park Drive West
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's change order letter dated June 21, 2012 for additional Design and Engineering ("D&E") Services for the Haverstraw Water Supply Project ("HWSP"), as follows:

Task	Contract / Authorized Amount	Approved Increase
7.1.1: Cost for Performing Geotechnical Investigations for the Intake Site (Upland):	\$ 36,525	\$21,200
7.1.2: Cost for Performing Geotechnical Investigations for the Intake Site (Underwater):	\$139,795	\$306,650
7.1.3: Cost for Performing Geotechnical Investigations for the Raw Water Pipeline route from the Intake Site to the JRSTP site:	\$ 20,266	\$39,825
7.1.6: Cost for Performing Geotechnical Investigations for the WTP site:	\$236,459	\$31,025
Total		\$ 398,700

The contract's upper limit total authorization for the Project shall be increased to seven million nine hundred forty one thousand six hundred ninety seven dollars (\$7,941,697).

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

CDM

July 11, 2012

Page 2 of 2

A handwritten signature in blue ink, appearing to read "Sameet Master". The signature is fluid and cursive, with the first name "Sameet" and the last name "Master" clearly distinguishable.

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

Sameet Master
Project Manager

UNITED WATER

700 Kinderkamack Road
Oradell, NJ 07649
TEL 201-634-4232
FAX 201-225-5125
Sameet.Master@unitedwater.com
WWW.UNITEDWATER.COM



January 3, 2013

Mr. Keith F. Kelly, P.E.
Senior Vice President
CDM
60 Crossways Park Drive West
Woodbury, NY 11791

Re: United Water New York Inc.
Haverstraw Water Supply Project 2010 D&E Services

Dear Keith,

United Water New York Inc. ("UWNY") is in receipt of CDM's change order letter dated December 26, 2012 for additional Design and Engineering ("D&E") Services all ready incurred and invoiced for the Haverstraw Water Supply Project ("HWSP"), as follows:

Task	Contract / Authorized Amount	Change Order
1.4: 100% Design		1,015,000
2.1: Project Management	773,511	316,000
2.3: Design Reviews	100,000	28,600
3.2: Additional Design for FEIS Completion	40,972	133,000
4.1: Support the JPA, WSP, and FCAF	140,000	55,000
4.2: Local land use permit applications initiate Site Plan	223,564	105,600
5.3: Phase 3 Pilot Reporting		66,000
6.1: Water Quality Buoy	176,268	18,120
7.1: Survey	155,137	98,000
7.2: Borings	1,031,715	20,100
Conservation Report	44,781	290
Haverstraw Landfill Enhancements		13,286
Project Labor Agreement		27,540
Sub-total		1,896,536
Unused amount remaining from prior authorization(s)		233,900
Total		1,662,636

CDM

January 3, 2013

Page 2 of 2

The contract's upper limit total authorization for the Project shall be increased to nine million seven hundred ninety four thousand eight hundred forty five dollars (\$9,794,845).

If you have any questions please call me at (201) 634-4232 or you can e-mail me at Sameet.Master@UnitedWater.com.

Yours very truly,

A handwritten signature in blue ink, appearing to read "Sameet Master", with a stylized flourish at the end.

Sameet Master, P.E.
Project Manager

Cc: J. Dyksen
File

From: [Master, Sameet](#)
To: ["Van Heiningen, Kurt"](#)
Cc: ["Kelly, Keith"](#)
Subject: RE: Emailing: UWNY pilot demo letter 012813.pdf
Date: Monday, March 11, 2013 5:29:00 PM

Hi Kurt.

Please proceed with the option #1 of the Pilot demolition.

Also, Mike from Rain for Rent called me about removing the frac tank. Can you please call him, 908-474-5805?

Thanks,
Sameet

-----Original Message-----

From: Van Heiningen, Kurt [<mailto:VanHeiningenKT@cdmsmith.com>]
Sent: Tuesday, February 12, 2013 5:57 PM
To: Master, Sameet
Cc: Kelly, Keith
Subject: FW: Emailing: UWNY pilot demo letter 012813.pdf

Hi Sameet,

There were a couple of costs that didn't hit our financial system when I estimated \$8k for the intake demo. The actual cost is \$9,700. Hopefully this doesn't cause you any issues. I will plan to bill these costs (with breakdown) through the contract you have with Keith.

Regards,

Kurt

-----Original Message-----

From: Van Heiningen, Kurt
Sent: Tuesday, January 29, 2013 5:27 PM
To: 'Master, Sameet'
Cc: Kelly, Keith
Subject: RE: Emailing: UWNY pilot demo letter 012813.pdf

Hi Sameet,

I don't have the exact number as all the bills haven't come in, but I would say around \$8k.

Kurt

-----Original Message-----

From: Master, Sameet [<mailto:Sameet.Master@UnitedWater.com>]
Sent: Tuesday, January 29, 2013 4:37 PM
To: Van Heiningen, Kurt
Cc: Kelly, Keith
Subject: RE: Emailing: UWNY pilot demo letter 012813.pdf

Thanks, Kurt. What is the cost for the intake decommissioning work that has been done?

-----Original Message-----

From: Van Heiningen, Kurt [<mailto:VanHeiningenKT@cdmsmith.com>]

Sent: Sunday, January 27, 2013 9:58 PM

To: Master, Sameet

Cc: Kelly, Keith

Subject: Emailing: UWNY pilot demo letter 012813.pdf

Hi Sameet,

Please find attached a proposal to remove the rental equipment from the pilot building and demolish the associated process piping, electrical and miscellaneous equipment. The demo is priced in two scenarios" option 1, full demo of the pilot system and option 2, limited demolition.

Should you have any questions, please feel free to contact Keith or myself.

Regards,

Kurt

Kurt van Heiningen, P.E.

CDM Smith

111 Founders Plaza - Ste. 1600, East Hartford, CT 06108

Office: 860 808 2282

Cell: 860 882 8235

The message is ready to be sent with the following file or link attachments:

UWNY pilot demo letter 012813.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

Appendix B

The Haverstraw Water Supply Project

Ensuring Rockland's Water Supply

Steering Committee Meeting
December 9, 2009

www.unitedwater.com/hwsp



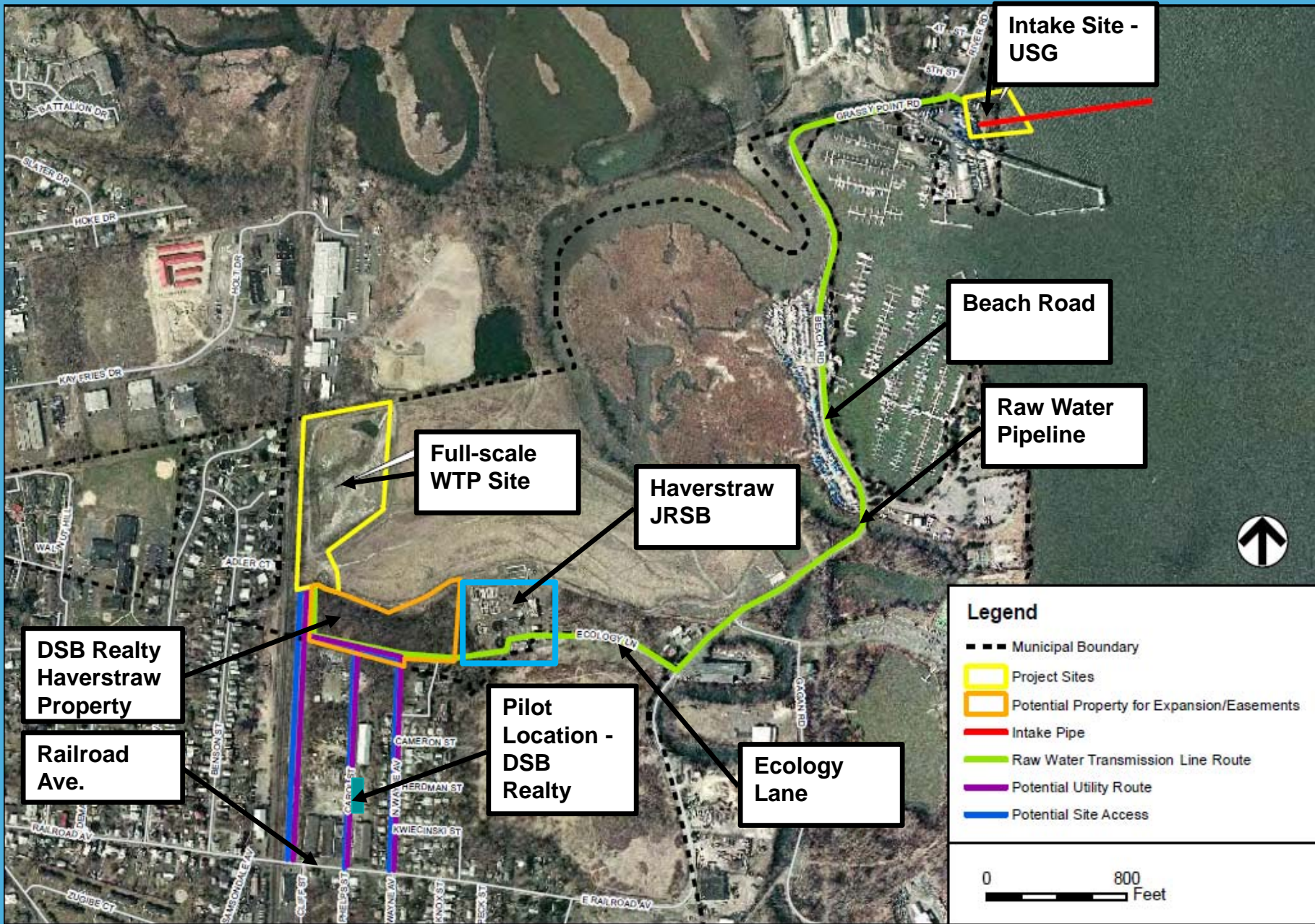
Agenda

- Project Status
 - Pilot Study
 - DEIS
 - PSC Milestones
- Property Acquisition
- Outreach and External Affairs
- Risks/Opportunities
- Next Steps
- Meeting Objectives:
 - Obtain Steering Committee direction for the DSB Properties.
 - Update the Steering Committee on the Project status.

Project Status

Pilot Study

Permit	Status
SEQRA Classification	Issued 1/09 – Type II
NYSDEC – Stream Disturbance, Navigable Waters, & Water Quality Cert.	Approved 11/09
USACOE – NWP #5 or #12	Approved 10/09
NYSDOS – Coastal Zone Consistency Certification	Approved 8/09
Haverstraw – Special Use Permit	Approved 6/09
Haverstraw – Site Plan	Approved 9/09 (Awaiting signed plan)
Haverstraw – Zoning Variances	Approved 9/09
Haverstraw – Architectural Review	Approved 9/09
Haverstraw – Building Permit	Application Submitted 10/09
JRSB – Industrial Discharge	Application Submitted 8/08
West Haverstraw – Site Plan	Approved 9/09
West Haverstraw – Building Permit	Application Submitted 10/09
Rockland County Highway Dept. Road Opening Permit	Approved 10/09



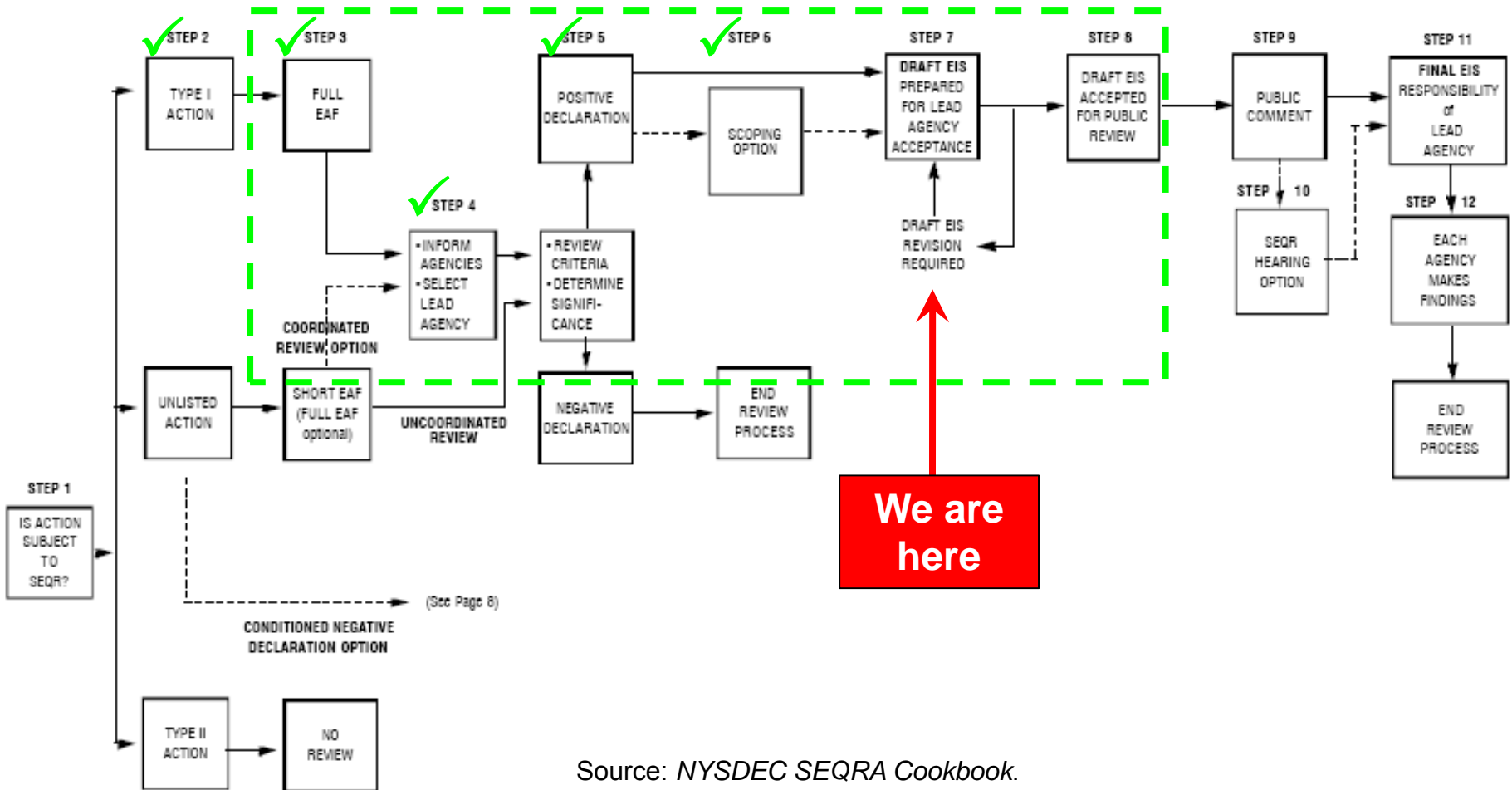
Pilot Study (cont'd.)

- Construction Status
 - Raw Water Pipeline
 - 8 week schedule
 - Construction start – approx. 12/21
 - Pilot Facility
 - 15 week schedule
 - Construction start – approx. 12/21
- Operations
 - Scheduled to begin in March 2010
 - Approx. 12 – 18 mo. duration

Draft Environmental Impact Statement Status

Date	Action
September 28, 2008	Draft Environmental Impact Statement ("DEIS") and environmental permit applications submitted
January 26, 2009	NYSDEC issues a lead agency coordination letter
April 2, 2009	NYSDEC declared itself as the lead agency, issues positive declaration, began public scoping period for DEIS
May 7, 2009	Public scoping sessions conducted in the Town of Haverstraw
May 29, 2009	Public scoping period ended
June 29, 2009	Final DEIS scope issued
June 30, 2009 - Present	UWNY updating DEIS to meet the final scope

Draft Environmental Impact Statement Status (cont'd.)



Source: NYSDEC SEQRA Cookbook.

Full-Scale Project Status

- Revise DEIS: Ongoing
 - Energy – reduce power imported from grid, and use green energy:
 - Wind – most viable option, however, site constraints may be limiting; potentially install turbines at other UWNYS sites to offset HWSP energy demand.
 - Solar – not as efficient as wind, however, acceptable by public.
 - Landfill gas – quantity being determined, if available could power diesel engines.
 - Digester gas from JRSTP – quantity being determined, if available could power diesel engines.
 - Grid – backup to above energy sources; potentially enter into agreement to purchase energy from “green” supplier.
 - Diesel engines – may be required by DOH in the event of loss of grid
 - Aquatic sampling – show effectiveness of intake screens
 - Sampling performed in August 2009
 - Additional sampling required in March, April, and May 2010; possibly June/July 2010 as well, depending on weather and species available.
 - Submit revised DEIS to NYSDEC: approx. May 2010
 - DEIS determined by NYSDEC to be “complete”: approx. Oct. 2010
 - Public Comment Period: approx. Oct. 2010 – Dec. 2010

Full-Scale Project Status (cont'd.)

- Begin local land-use approval process (i.e., site plan approval).
- Design/Engineering – CDM: Ongoing
 - Advance design to address scoping comments and begin site plan process.
- Complete property acquisitions: Ongoing

PSC Milestones

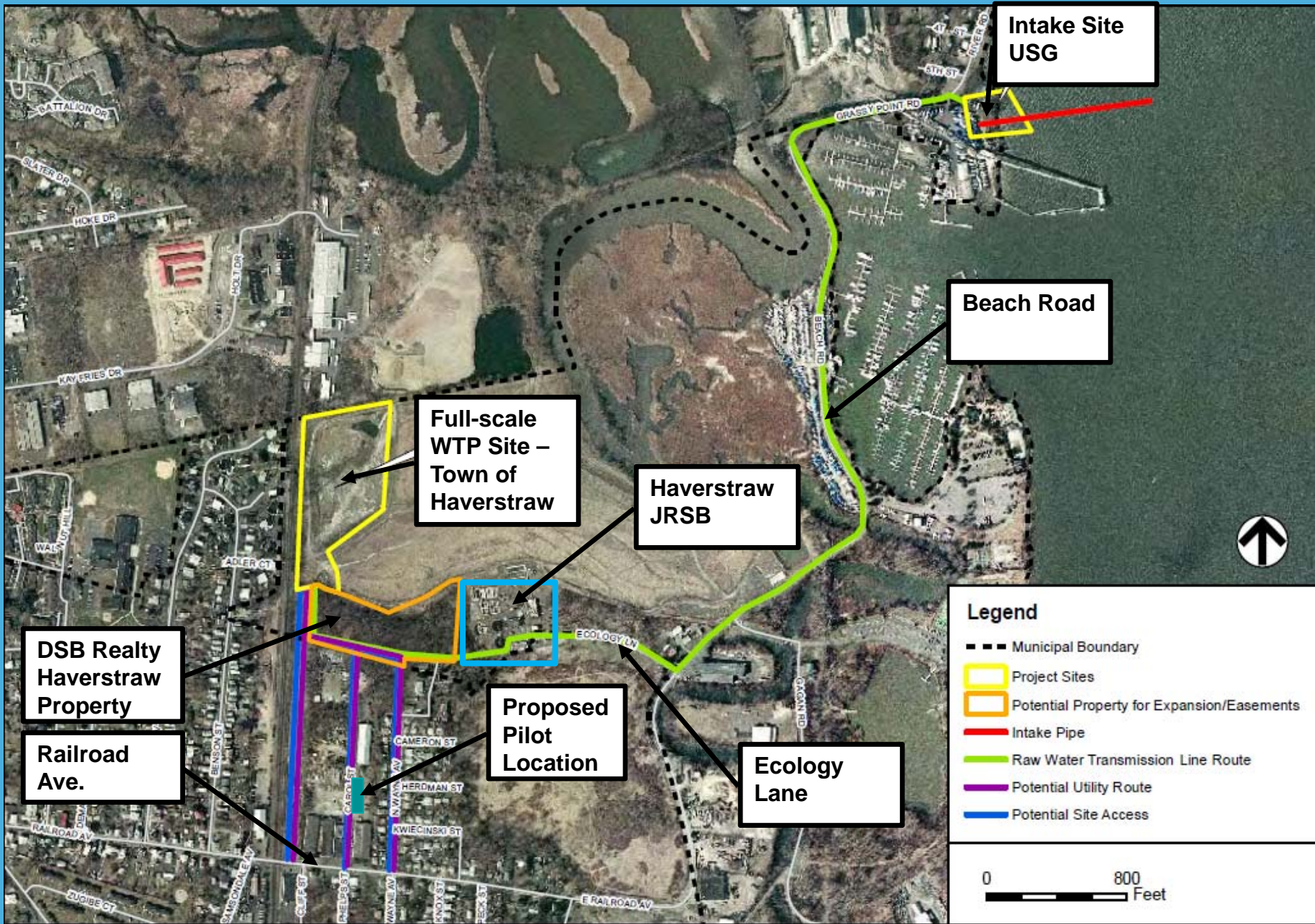
- 2006 Rate Order included a Joint Proposal that requires UWNy to develop a long-term water supply according established milestones

Milestone	Date	Status
Project Description to PSC	1/15/07	☑ – Milestone achieved
Preliminary Conceptual Design	9/30/07	☑ – Milestone achieved
Submit DEIS and all required environmental permit applications	9/30/08	☑ – Milestone achieved
Complete pilot plant studies, if required	12/31/09	Letter sent 12/27/2008
Obtain Environmental Permits	9/30/10	Letter sent 9/30/2009
Complete 50% design	9/30/11	Ongoing
Begin Construction	5/31/13	
In-service	12/31/15	

Property Acquisitions

Properties

- Pilot Study
 - Intake: U.S. Gypsum Property (Lease)
 - Raw Water Pipeline: Partially through Haverstraw Joint Regional STP (License)
 - Pilot Facility: DSB Realty Property (Lease)
- Full-Scale
 - Intake: U.S. Gypsum Property (Option)
 - Raw Water Pipeline & Utilities: Partially through Haverstraw Joint Regional STP (Option) and DSB Realty Property
 - Water Treatment Plant: Town of Haverstraw Property, adjacent to Haverstraw Landfill (Option)
- Option Strategy
 - U. S. Gypsum
 - Town of Haverstraw
 - JRSB
 - DSB Realty



DSB Realty - Full-Scale Facility

- Strategic Importance
 - WTP site is essentially land-locked. As discussed previously, alternative access routes pose additional risks and regulatory roadblocks.
 - DSB Realty's property will serve as the key access route to the WTP for:
 - Raw Water Pipe
 - Brine Pipe and Sludge Pipe to the JRSTP
 - Utilities, and
 - Construction and maintenance vehicles.
- Who is DSB Realty?
 - DSB Realty is a three-person limited liability corporation that has only been in business since 2005; has limited assets, etc.

DSB Realty - Full-Scale Facility (cont'd.)

- Risks
 - An option agreement may not adequately protect UWNY's interest in a property that is strategically critical to the overall success of the HWSP.
 - For example, DSB Realty could dissolve or file for bankruptcy.
- Potential Risk Mitigation
 1. Purchase immediately after environmental due diligence (\$1,500K).
 2. Purchase Money Mortgage ("PMM").
- Purchase Money Mortgage
 - Definition: "A security device entered into when the seller of property, as opposed to a bank or financial institution, advances a sum of money or credit to the purchaser in return for holding the mortgage on the property."
 - A PMM would allow a special purpose company to take title to the property, make payments that are similar to option payments, but will also allow the UW entity to "give the property back" if the project does not move forward.

DSB Realty - Full-Scale Facility (cont'd.)

- Purchase Money Mortgage (cont'd)
 - Advantages – UW entity would immediately receive title (i.e., DSB Realty dissolution/bankruptcy risk would be mitigated), and secure property.
 - Disadvantages – UW entity would enter the chain of title for CERCLA purposes and incur some additional expenses.

Note: Under a conventional option agreement, UWNY would enter into the chain of title for CERCLA purposes when the option is exercised.
- Proposed PMM Process
 - Enter into an option agreement placing \$75K (Option payment for 2009) into escrow.
 - Complete environmental due diligence, including a Phase 2 site assessment.
 - Steering Committee review of environmental due diligence.
 - If agreement to proceed, create special purpose company / enter into PMM with DSB Realty.

Outreach and Communications

Support

- “We were very concerned with both public health and public safety implications of inadequate water supply capacity that could potentially result in a loss of system pressure.”
- “The important goal to the County is the necessity to move forward on a new water supply project ...The County looks forward to meeting with all the parties and using our best efforts to make certain the residents of Rockland County have a safe and adequate supply of water, both now and into the future.”
 - County Attorney Patricia Zugibe, Letter dated October 22, 2009 to Parties to the 2006 Joint Proposal
- “...United Water has made a convincing case that purifying Hudson River water is the most reliable and cost effective option available.”
 - Bob Salmon, Letter to the Editor, Journal News, August 11, 2009
- “We must let the state Department of Environmental Conservation be the judge and not “special interest groups.” ... I urge our public officials to quickly approve this project...”
 - Diego Aviles, Letter to the Editor, Journal News, July 22, 2009
- “I sincerely hope ...United Water's proposal gains government approval.”
 - Joe Beckerle, Letter to the Editor, Journal News, July 9, 2009
- Organizational Support from RBA and REDC

Understanding the Opposition

- Evolving messages
 - Ambrey Pond \Rightarrow No Action \Rightarrow Emergence of Lake Deforest Releases Argument
- Understanding the Opposition “Playbook”
 - Regional groups may not play as well in Rockland (Riverkeeper, Sierra Club, Food and Water Watch)
 - Waiting for the moment to strike: completion of the DEIS? Rate case?
 - Riverkeeper at RBA
- Apparent Handoff to Locals
 - Gaining traction
 - “Rockland Coalition for Sustainable Water” hosted County Executive debate.
 - Successful passage of resolution in opposition to project in 2 towns. Efforts underway to prevent passage in other 2 towns.
 - Getting key meetings with decision makers.
 - Newspaper articles, letters to the editor, blogs

Advantages and Disadvantages

- Opposition Advantages
 - Pervasive
 - Energetic
 - Dedicated
- Opposition Disadvantages
 - Limited Resources
 - Exhaustion Factor
 - Changing Messages
- UW's Advantages
 - Speak from Position of Knowledge
 - Resources- communications plan, tap experts
 - Ability to reach greater numbers with our messages
- UW's Disadvantages
 - Grassroots organization

Communications and Outreach Response

- Outreach
 - Presentations to elected officials
 - Presentations to interveners
 - Presentations to civic and neighborhood organizations
 - Presentations to business associations
 - Community events
 - Ongoing discussions with regulators
- Communications
 - Customer and Internal UWNY Newsletter
 - TV and radio spots
 - Letters to editor, community views
 - Direct mail postcards
 - E-mail newsletter to Rockland residents
 - Brochures
 - Media discussions, editorial boards
- Commissioned study on Lake DeForest releases
- National Academy of Sciences
- Preparation of white papers – source water and treatment process

12/8/2009



The HWSP and the UWNY Rate Case

- UWNY continues to update parties to the 2006 Joint Proposal
 - 12/31/08: letter to the Parties indicated that pilot testing milestone would not be met
 - 07/22/09: meeting with the Parties
 - Further reminder that due to protracted permitting process, completion of pilot testing could not be completed by target deadline
 - General understanding that UWNY remains committed to the HWSP- Supervisor St. Lawrence speaks in support
 - 10/09: Sup. St. Lawrence intervenes in current UWNY rate case
 - 10/28/09: Town of Ramapo passes resolution opposing HWSP
 - 11/10/09: Town of Stony Point passes resolution opposing HWSP
 - Efforts to stop passage in other towns: Ongoing
 - 12/09: UWNY will write to the Parties once again regarding the pilot milestone
 - UW will initiate discussions with PSC staff on CSL and best efforts re: current rate case
 - Internal discussion re: possibility of Sup. Phillips and RBA intervening
 - Riverkeeper and/or other opposition may intervene in an attempt to halt the project

The Haverstraw Water Supply Project

Ensuring Rockland's Water Supply

Steering Committee Meeting
December 9, 2009

www.unitedwater.com/hwsp



March 30, 2010 Presentation



The Haverstraw Water Supply Project

Ensuring the Future of Rockland's
Water

www.unitedwater.com/hwsp

Agenda

- Project Status
 - Properties – USG and DSB
 - Pilot Study
 - Draft Environmental Impact Statement
 - 2006 Joint Proposal Milestones
- Radionuclides
- Project Cost
- Communications/Outreach
- Meeting Objectives:
 - Update the Steering Committee on the Project status.
 - Obtain Steering Committee direction for the USG and DSB Properties.
 - Obtain Steering Committee direction for the radionuclide strategy.



Project Status

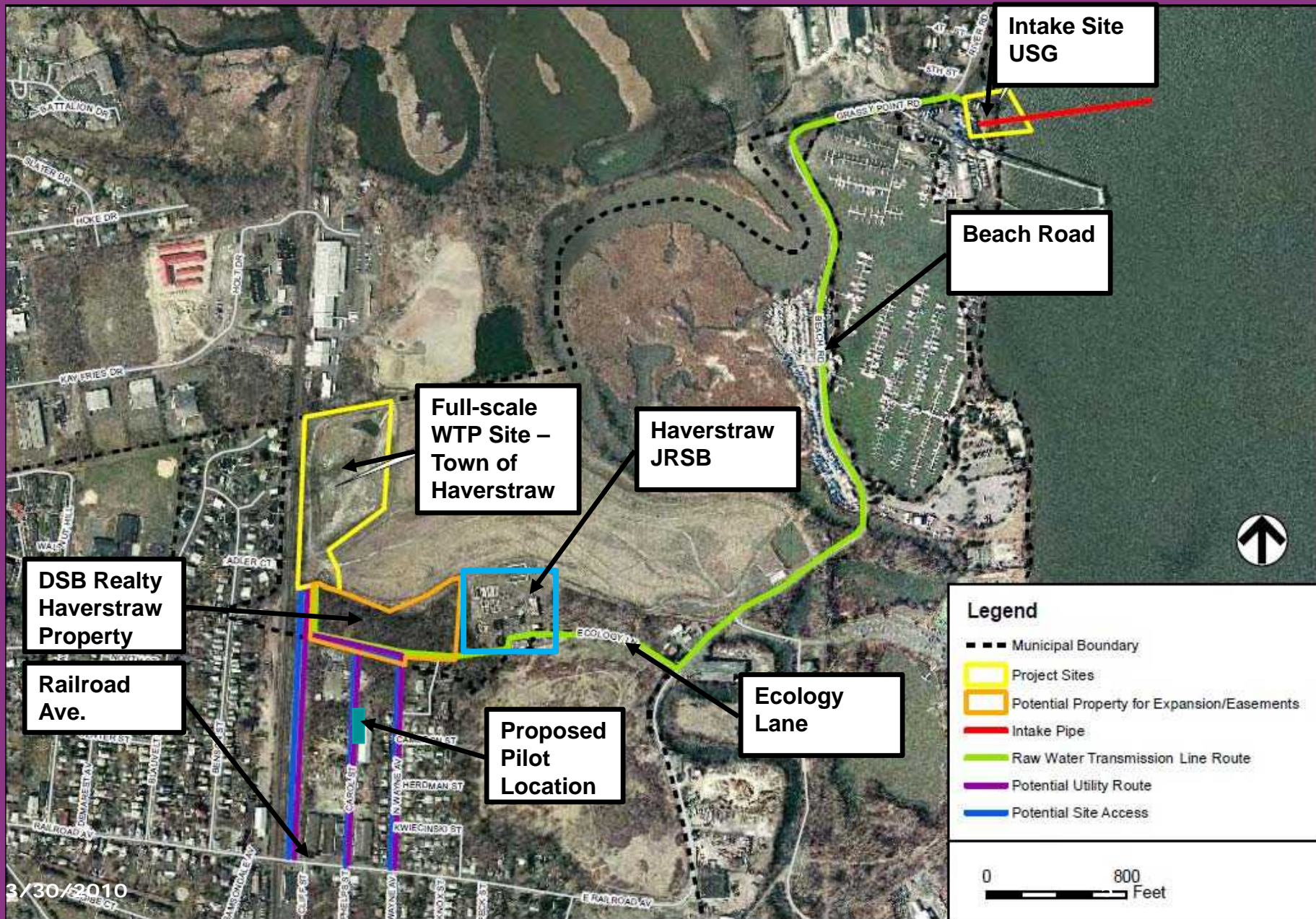


Properties

- Pilot Study
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- Option Strategy
 - U. S. Gypsum
 - Town of Haverstraw
 - JRSB
 - DSB Realty



Properties, (cont'd.)



USG

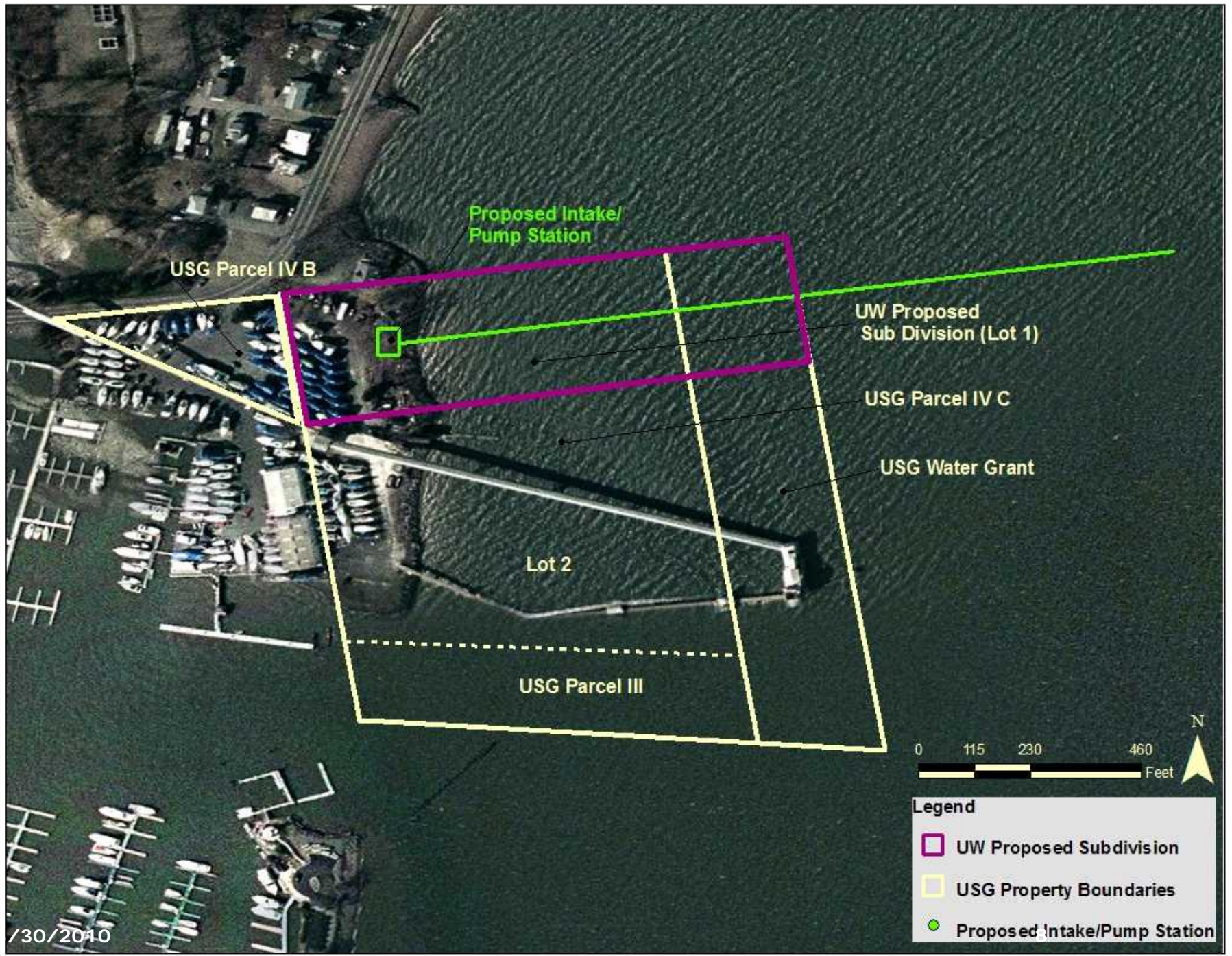
- March 2008: USG Intake Site identified.
- March – June 2008: Discussions (various meetings, calls, and e-mails) with USG to discuss pilot study details. USG agrees to enter into a lease for the pilot study and an option for the full-scale intake. Ongoing discussions with USG regarding property acquisition.
- June 2008: UWNY files site plan application for pilot at USG site.
- July 2008: USG provides affidavit authorizing “United Water to make any and all applications for the long-term water supply project, including but not limited to United Water's Pilot Plant that involves U.S. Gypsum property.”
- July 2008 – Present:
 - Conducted site survey and soil borings.
 - Numerous site visits with contractors, consultants, DEC staff, and PSC staff.
 - Appraisals completed by both USG and UWNY establishing lease and purchase price.
 - Repeated contact with USG aimed to formalize agreement.
 - USG cites competing corporate priorities for delay in formalizing agreement.
 - September 2008: USG site discussed at length in DEIS.



USG, (cont'd.)

- January 2010: UWNY and USG discuss moving agreement forward. USG indicates that internal legal resources are strained and outside counsel will need to be retained.
 - UWNY offers to reimburse legal fees for USG to retain outside counsel to expedite the process.
- February 25, 2010: SEC Form 8-K for USG Corp:
 - “As part of the Registrant's steps to adjust operations and staffing to adapt to market conditions, the Registrant determined on February 22, 2010 that its subsidiary, United States Gypsum Company, will temporarily close its wallboard manufacturing plant in Stony Point, New York. The closure is expected to be implemented in June.”
- March 8, 2010: USG notifies UWNY of “suspended operations” at Stony Point facility and possible sale of property.
- March 17, 2010: USG Property Dept. contacts UWNY, indicates internal meeting being scheduled shortly and pilot does not seem to be an issue.





USG Parcel IV B

Proposed Intake/
Pump Station

UW Proposed
Sub Division (Lot 1)

USG Parcel IV C




USG Water Grant

Lot 2

USG Parcel III



Legend

-  UW Proposed Subdivision
-  USG Property Boundaries
-  Proposed Intake/Pump Station

Strategic Importance of USG Site

- Criteria for selecting an intake site:
 - Abut Hudson River.
 - Proximity to WTP and JRSTP site.
 - No parkland designation.
 - Continuous ownership to state-owned waters.
 - Willing seller/feasible condemnation.



USG Next Steps

- Proposed strategy:
 - Haverstraw Town Supervisor, UWNYS and USG to meet.
 - Continue discussions with USG.
 - Priority is to secure a lease for the Pilot Study.
 - Identify/pursue alternative intake sites to include in DEIS
 - If necessary, proceed with condemnation of USG intake parcel.

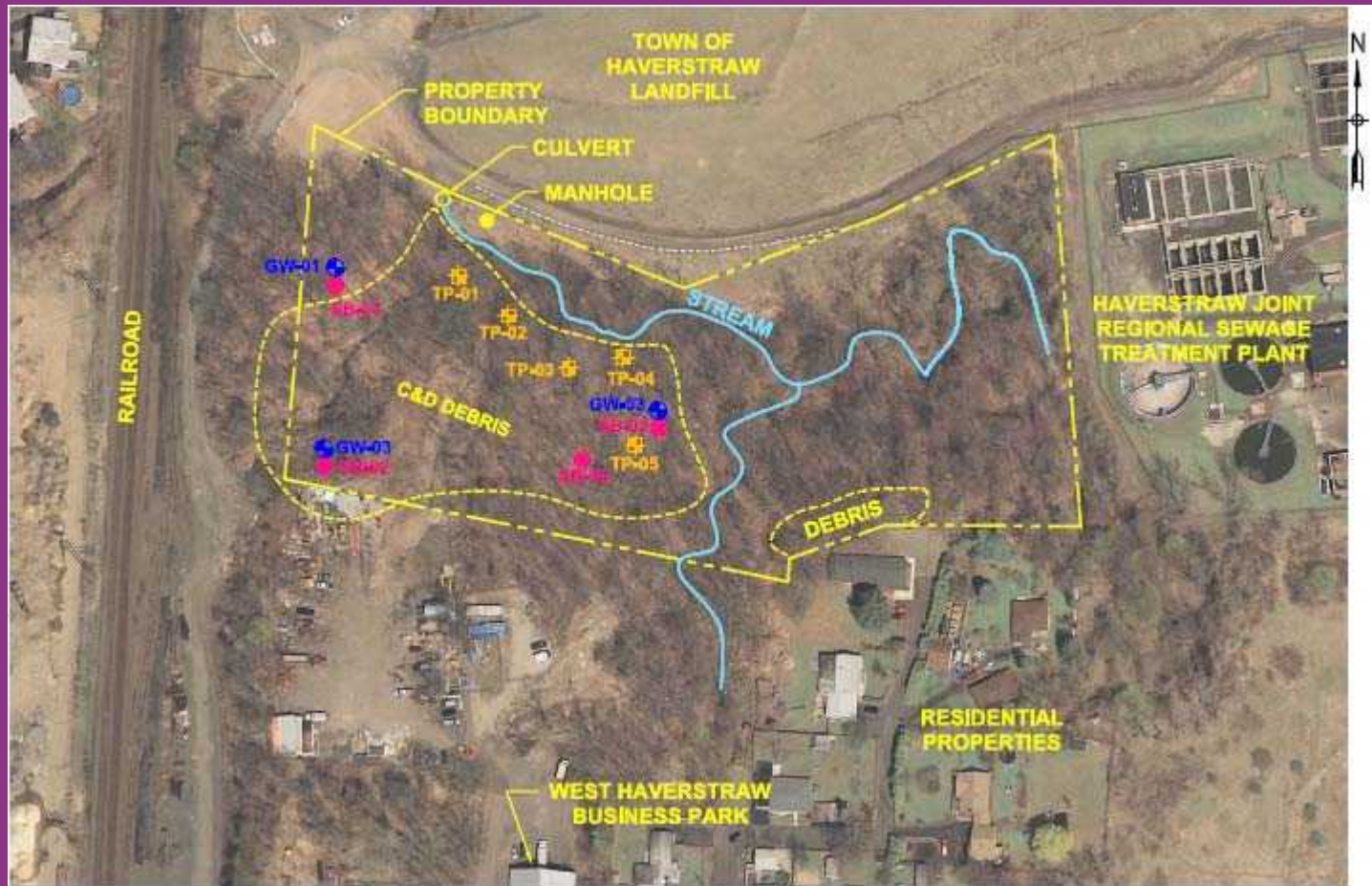


DSB Realty – Full-Scale Facility

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 - DSB Realty's property will serve as the key access route to the WTP for:
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 - Brine Pipe and Sludge Pipe to the JRSTP
 - Utilities, and
 - Construction and maintenance vehicles.
- Who is DSB Realty?
 - DSB Realty is a three-person limited liability corporation that has only been in business since 2005; has limited assets, etc.



DSB – Full-Scale Facility, (cont'd.)



DSB Realty – Full-Scale Facility, (cont'd.)

- Engaged Environmental Resources Management (ERM) to perform Phase I and II environmental assessment.
- Phase II environmental assessment
 - Soil:
 - Construction & demolition (“C&D”) debris fill material was present throughout the central and western portions of the property (approximately 3-acres). The depth of the fill material generally ranged from 4-6 feet.
 - The fill material consisted of soil mixed with asphalt, concrete, brick, and rocks.
 - Groundwater:
 - Two VOCs found above MCL (toluene and acetone).
 - Toluene detected at low levels in majority of soil samples.
- Preliminary report: Findings consistent with industrial property of this type.
- Next Steps
 - Formal report
 - Meeting to discuss go/no-go decision by end of March
 - Environmental insurance?



Pilot Study

- Schedule:
 - June 2008: Local permit applications submitted.
 - July 2008: Courtesy copy of local permit applications (with SEQRA Type II analysis) provided to New York State Department of Environmental Conservation ("NYSDEC").
 - August 2008: State/federal permit applications submitted.
 - September 2008: Meeting with NYSDEC to discuss SEQRA determination. NYSDEC attorney expresses "grave concerns" with SEQRA analysis.
 - January 2009: SEQRA Type II determination confirmed by NYSDEC.
 - July – September 2009: Local site plan approvals issued, conditioned on NYSDEC approval and SEQRA determination.
 - November 2009: DEC Permit issued.
 - February 2010: West Haverstraw and Haverstraw building permits issued.



Pilot Study, (cont'd.)

Permit	Status
SEQRA Classification	NYSDEC Permit Issued 11/2009
NYSDEC – Stream Disturbance, Navigable Waters, and 401 Water Quality Certification	Issued 11/2009
USACOE – NWP #12	Issued 4/2009
NYSDOS – Coastal Zone Consistency Certification	Issued 8/2009
Haverstraw – Special Use Permit	Issued 6/2009
Haverstraw – Site Plan	Issued 9/2009
Haverstraw – Zoning Variances	Issued 8/2009
Haverstraw – Architectural Review	Issued 7/2009
Haverstraw – Building Permit	Issued 2/2010
West Haverstraw – Site Plan	Issued 8/2009
West Haverstraw – Building Permit *	Issued 2/2010

* There remains an industrial discharge authorization to be obtained from the JRSB (expected by the end of March) because United Water is electing to discharge its brine in a concentrated form to that facility. United Water also has the ability to discharge this material in a non-concentrated form. In any event, this authorization is not a limiting factor because it is operational – as opposed to a construction requirement.



Pilot Study, (cont'd.)

- Approvals:
 - All approvals received, with the exception of the JRSB Industrial Discharge Permit.
 - JRSB was required to obtain public comments prior to issuing the permit.
 - The public comment period ends in March; the permit is expected to be issued shortly thereafter.
- Construction:
 - Intake: awaiting USG authorization to access the site.
 - Raw Water Pipeline: installed from the Pilot Facility to the USG property line.
 - Pilot Facility: equipment installation ongoing.
- Operations:
 - The Pilot Study is planned to be operational in the Second Quarter of 2010. The Pilot Study is anticipated to operate 12 – 18 months, with preliminary data available in the Second Quarter of 2010.



Pilot Study, (cont'd.)



Draft Environmental Impact Statement

- September 26, 2008 – Draft Environmental Impact Statement (“DEIS”) and environmental permit applications submitted.
- January 26, 2009 – NYSDEC notifies all involved agencies of its intention to assume lead agency status.
- April 2, 2009 – NYSDEC declare itself lead agency.
- May 7, 2009 – NYSDEC conducts public scoping session.
- July 1, 2009 – NYSDEC issues DEIS scope.
- July 2009 – Present: DEIS revision to address July 2009 scope.
- June 2010 (target) – Submit revised DEIS to NYSDEC.
- July – November 2010 (estimated): NYSDEC review DEIS against the scope.



Draft Environmental Impact Statement, (cont'd.)

- November 2010 – February 2011 (estimated): NYSDEC to determine the DEIS is complete, issue draft permits, and begin public comment period.
- February – April 2011 (estimated): Public comment period.
- April – June 2011 (estimated): Prepare and submit Final EIS addressing public comments to NYSDEC.
- June – July 2011 (estimated): NYSDEC to determine Final EIS is complete and publish FEIS.
- July – September 2011 (estimated): Agencies to issue findings statement and permits.
- Factors that may effect this schedule:
 - NYSDEC and other approval agency cooperation.
 - Adjudicatory hearing.
 - Stakeholder support (elected officials, state agencies, Joint Proposal parties, customers, etc.).
 - Allocation of UW resources.



2006 Joint Proposal Milestones

- 2006 Rate Order included a Joint Proposal that requires UWNY to develop a long-term water supply according to established milestones.

Milestone	Date	Status
Project Description to PSC *	1/15/07	☑ – Milestone achieved
Preliminary Conceptual Design *	9/30/07	☑ – Milestone achieved
Submit DEIS and all required environmental permit applications *	9/30/08	☑ – Milestone achieved
Complete pilot plant studies, if required	12/31/09	Ongoing
Obtain Environmental Permits	9/30/10	Ongoing
Complete 50% design	9/30/11	Ongoing
Begin Construction	5/31/13	
In-service	12/31/15	

* Filings received by the Parties without comment.



2006 Joint Proposal Milestones, (cont'd.)

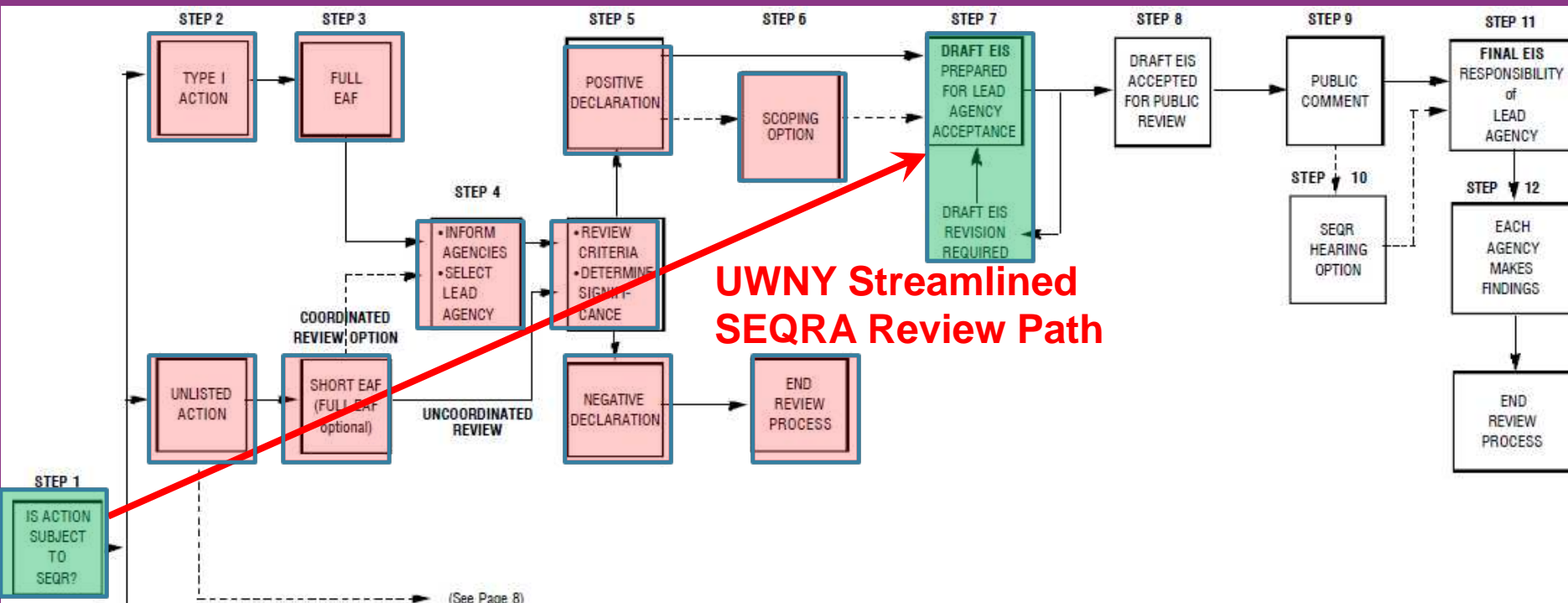
- December 31, 2009 Milestone – Complete Pilot Studies, if required.
 - November 5, 2008: UWNy met with DPS staff to update staff on milestones and sought DPS staff guidance facilitating permits and SEQRA classification of Pilot.
 - December 31, 2008: UWNy provides notice to the Joint Proposal parties that the December 31, 2009 milestone is in jeopardy of not being achieved.
 - July 22, 2009: UWNy convenes meeting of the Joint Proposal parties to discuss the status of the December 31, 2009 milestone.
 - December 28, 2009: UWNy notifies the Joint Proposal parties that it was unlikely that the December 31, 2009 milestone would be met.
 - January 20, 2010: UWNy requests meeting with Joint Proposal parties to discuss December 31, 2009 milestone.
 - February 16, 2010: UWNy and Joint Proposal parties meet to discuss December 31, 2009 milestone. *

* To date, the only party that has agreed to relieve UWNy of the milestone penalty is The Woodlands at Tuxedo Homeowners Association.



2006 Joint Proposal Milestones, (cont'd.)

- September 30, 2010 Milestone – Obtain Environmental Permits:
 - The 2 year period (i.e., September 2008 – September 2010) to revise, comment on a DEIS, prepare a FEIS, and issue permits, while aggressive, should have been sufficient given UWNYS efforts to eliminate multiple time-consuming steps in the SEQRA process



2006 Joint Proposal Milestones, (cont'd.)

- September 30, 2010 Milestone – Obtain Environmental Permits
 - However:
 - The NYSDEC took over 6 months to declare itself lead agency and issue a positive declaration and an additional 3 months to scope the DEIS, all of which could have been completed in 2008.
 - Extensive scope driving the time needed to revise the DEIS.
 - September 30, 2009: UWNY provides notice to the Joint Proposal parties that the September 30, 2010 milestone is in jeopardy of not being achieved.



2006 Joint Proposal Milestones, (cont'd.)

- September 30, 2011 Milestone – Complete 50% design:
 - Achievable, with the following criteria *:
 - Process design: 50+%
 - Hydraulic grade: 50+%
 - Process Flow: 50+%
 - Site Plan: 50%
 - Architectural plan: 50%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 20%
- * Subject to Joint Parties agreement, UWNY will either: 1) progress the design to 50% for each discipline, or 2) progress the design to 50% for the average of all disciplines.
- These components being developed to these levels should meet the milestone requirement. The key assumptions behind these are:
 - Pilot testing starts in the 1st quarter 2010.
 - The DEIS is determined to be “complete” by the NYSDEC by the end of 2010.
 - Public input on the DEIS (expected in 2011) does not significantly change the process.



2006 Joint Proposal Milestones, (cont'd.)

- May 31, 2013 – Begin Construction and
- December 31, 2015 – In-service Milestones:
 - Achievable, provided:
 - NYSDEC and other approval agency cooperation.
 - No adjudicatory hearing.
 - Stakeholder support (elected officials, state agencies, Joint Proposal parties, customers, etc.).
 - Allocation of UW resources.



Radionuclides



Raising the Radionuclide Issue

- "...Given that the facility would be ...close to a leaking nuclear power plant, concerns about water quality for purposes of human consumption are more than valid."
 - Riverkeeper Staff Attorney, Deborah Brancato, *Journal News* letter to the editor, 9/29/09
- "...the drinking water the plant produces may contain traces of radioactive chemicals that pose a threat to human health."
 - *Food and Water Watch* Press Release, 11/18/09
- "The reverse osmosis process is supposed to filter out the strontium - and divert it and the other contaminants into the N. Rockland sewer system, but what about the chemicals it cannot eliminate? Persistent problems at the Indian Point nuclear power plant directly opposite the Haverstraw desalinization plant intake involve leaks and spills of radioactive material into the Hudson. These have been dismissed by Entergy, the plant operator, and nuclear regulators because "the radioactive material is not spilling into a source of drinking water."
 - *Our Town* editorial 1/13/10



Raising the Radionuclide Issue, (cont'd.)

- "Are we building a plant for New Jersey so that we can have water from the Hudson that's radioactive?"
 - Jeff Sasson, New City Resident
- "... Sasson wanted the company to state whether there was a way to remove all radioactive material from the treated water, while (Shirley) Lasker asked whether the company would make a 100 percent guarantee no such materials were in the water."
 - "Water plant's plan has utility, critics busy," *Journal News* article, 1/13/10
- "...the water being drawn may be contaminated with trace radioactive substances that no treatment can remove. Can UWNY remove such known cancer causing pollutants from Hudson River as Strontium 90, tritium, and other radioactive nuclides that leak from Indian Point? Strontium 90 and Tritium are common wastes from nuclear reactors. According to [the] United States Department of Environmental Protection Agency "Sr-90 is linked to bone cancer, cancer of the soft tissue near the bone and leukemia." Similarly, United States Department of Environmental Protection Agency, has found tritium "goes directly into soft tissue and organs" as a consequence "exposure to tritium increases the risk of developing cancer."
 - PSC Case No. 09-W-0731, Testimony of Town of Ramapo Supervisor Christopher St. Lawrence, 2/12/ 2010



Radionuclides

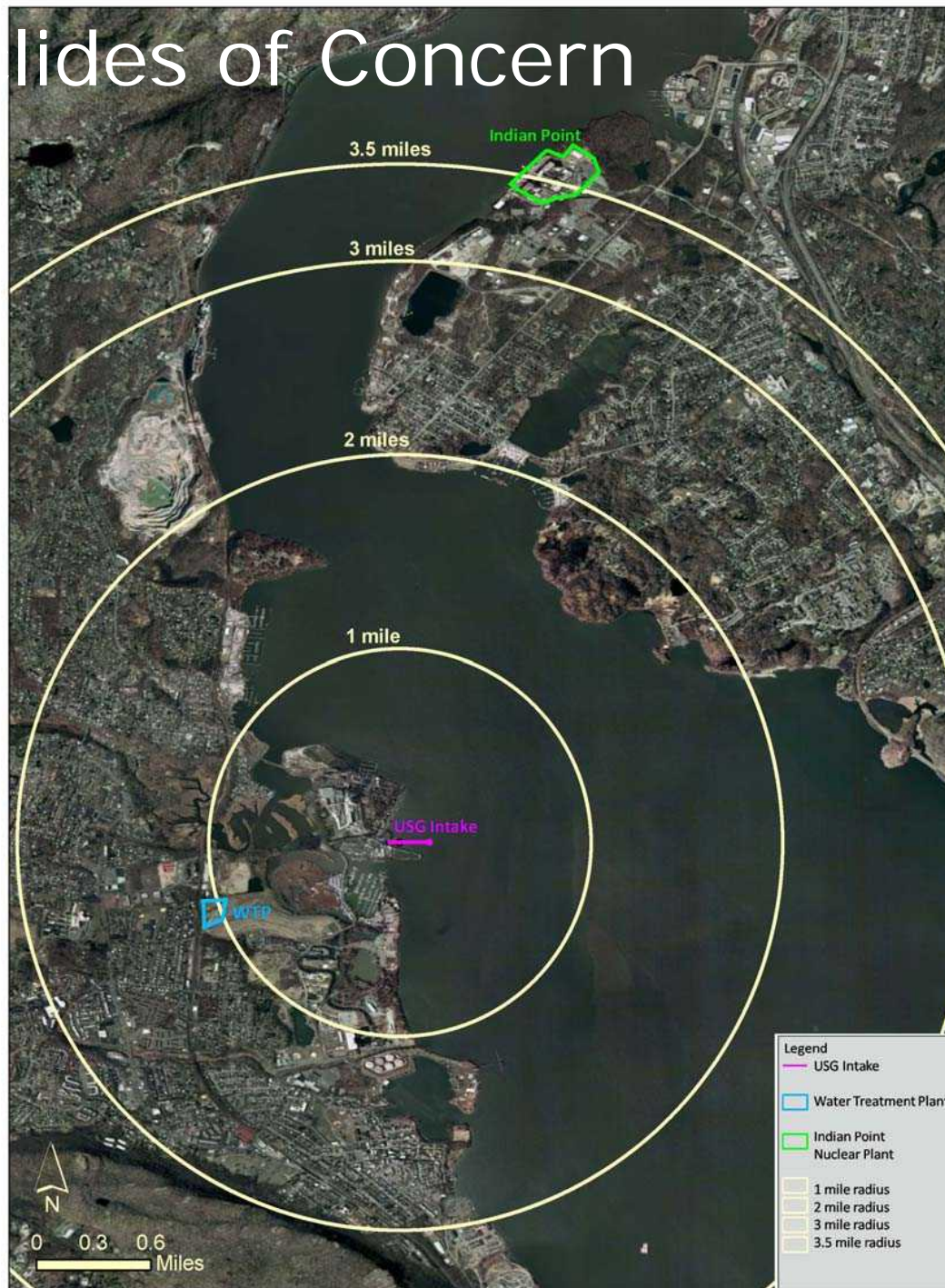
- Issues have been raised due to:
 - The proximity of Indian Point,
 - Perceived health risk of radionuclides, and
 - Public mistrust of Entergy (owner/operator of Indian Point)

Do we need to establish an action level for tritium below the EPA MCL (20,000 pCi/L)?

- Frequency of radionuclide sampling.
- Operating protocol.
- Effect on project design and cost.
- Communications strategy.



Radionuclides of Concern



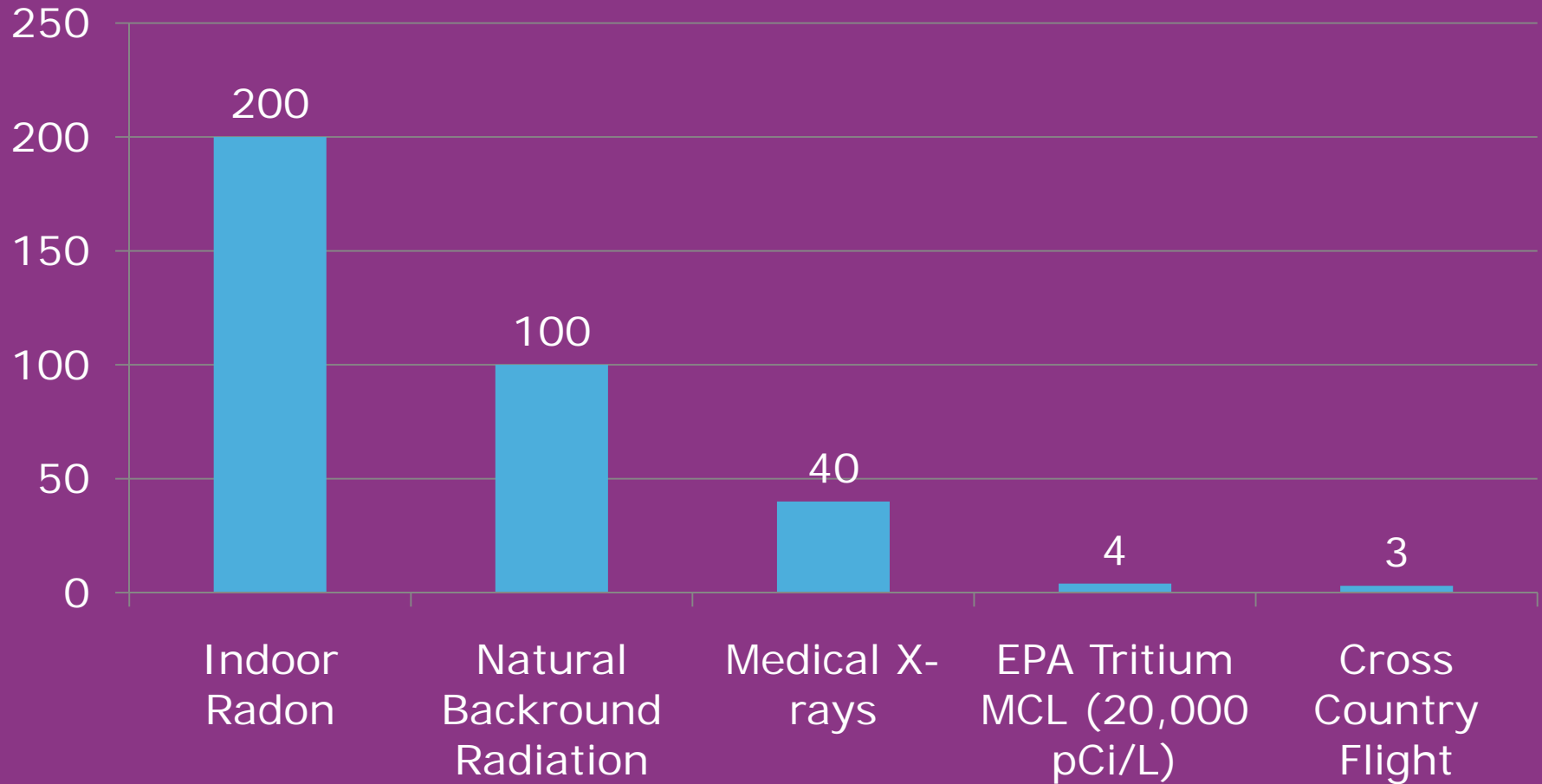
Radionuclides of Concern, (cont'd.)

- Radionuclides that do not partition to particles are of concern.
 - Tritium cannot be removed through the water treatment process.
- Tritium Facts
 - Argonne National Laboratory: "Tritiated water behaves the same as ordinary water, both in the environment and in the human body. Hence, a significant fraction of the inhaled and ingested tritium is directly absorbed into the bloodstream. The health hazard of tritium is associated with cell damage caused by the ionizing radiation that results from radioactive decay, with the potential for subsequent cancer induction." (Argonne National Laboratory, Human Health Fact Sheet, August 2005)
 - EPA MCL is 20,000 pCi/L
 - Initially, four consecutive quarters of monitoring.
 - Then annual samples for "vulnerable" systems.
 - Everyone is exposed to small amounts of tritium every day.
 - A typical individual in the United States receives an average annual radiation exposure of about 300 millirem ("mrem") from natural sources.
 - NRC established 100 mrem annual dose limit for members of the general public from nuclear power plant operations.
 - IP radioactive liquid effluent limit is 3 mrem per year. (10 CFR 50, Appendix I)



Radionuclides of Concern, (cont'd)

Radiation Exposure (mrem/yr)



Radionuclides of Concern, (cont'd.)

- Tritium Facts, (cont'd)
 - EPA maximum contaminant level (est. in 1976) = 20,000 pCi/L, assumed to yield a dose of 4 mrem per year.
 - Since 1976, the calculation methods to equate concentrations of tritium in drinking water (pCi/L) to radiation doses in people has improved.
 - In 1991, EPA calculated a tritium concentration to yield a 4 mrem per year dose as 60,900 pCi/L, however, the MCL is still 20,000 pCi/L.
 - Drinking 2 liters of water per day for 70-years at the EPA 20,000 pCi/L MCL creates an approximate 1 in 10,000 chance of causing radiation-induced cancer (conversely, there is approximately a 99.99988% chance that it will not cause radiation-induced cancer).
 - Radiation risk is proportional to the dose, so if the dose is reduced by a factor of 10, the risk is reduced by a factor of 10.
 - The 2007 sampling program had 11 samples analyzed for tritium, all of which were below the EPA minimum detection limit of 1,000 pCi/L.



Radionuclides of Concern, (cont'd.)

- Tritium sampling method
 - EPA Minimum Detection Level is 1,000 pCi/L.
 - Sample needs to be adapted to light.
 - Sample then mixed with “cocktail.”
 - The light emitted from the sample is then counted using liquid scintillation.
 - Sample analysis typically takes 24 – 48-hours.

Sources:

- *Tritium, Radiation Protection Limits, and Drinking Water Standards Fact Sheet*, USNRC
- *A Perspective on Radiation Doses and Health Risks from Ingestion of Tritium in Drinking Water and Potential Impacts on Aquatic and Terrestrial Biota*, David C. Kocher, PhD.
- USNRC Effluent Database for Nuclear Power Plants.



Radionuclides of Concern, (cont'd.)

- Carcinogens Typically Found in Drinking Water

Compound	MCL	Typical Level
Trihalomethanes	80 ug/L	50 – 70 ug/L
Haloacetic Acids	60 ug/L	30 – 50 ug/L
Tritium	20,000 pCi/L	<1,000 pCi/L
Trichloroethylene	5 ug/L	1 – 2 ug/L
Arsenic	10 ug/L (NY MCL) (NJ MCL = 5 ug/L)	1 – 5 ug/L
Radium 226 + 228	5 pCi/L	0.5 – 1.0 pCi/L
Radon (MCL considered by NJ)	800 pCi/L	200 – 500 pCi/L

Radionuclides of Concern – Hypothetical Tritium Release

- Indian Point hypothetical releases were simulated with numerical modeling (calculated using water year 94-95 Hudson River flows).
 - Approximately 3.6 miles of River between Indian Point and the proposed intake site dilutes Indian Point release
 - Dilution varies with River conditions and mass discharge rate of Indian Point release
 - In 2007, IP released 1,468 Ci of tritium, or $1,468 \times 10^{12}$ pCi.
- Maximum Tritium Concentration at UWNYS proposed Intake per Ci/day released from Indian Point were calculated:

– 1 hour 1 Ci/day release from IP, tritium at the intake:	1.78 pCi/L
– 1 day 1 Ci/day release from IP, tritium at the intake:	7.73 pCi/L
– 1 week 1 Ci/day release from IP, tritium at the intake:	30.13 pCi/L
– 1 month 1 Ci/day release from IP, tritium at the intake:	41.24 pCi/L
– Continuous 1 Ci/day release from IP, tritium at the intake:	114.6 pCi/L

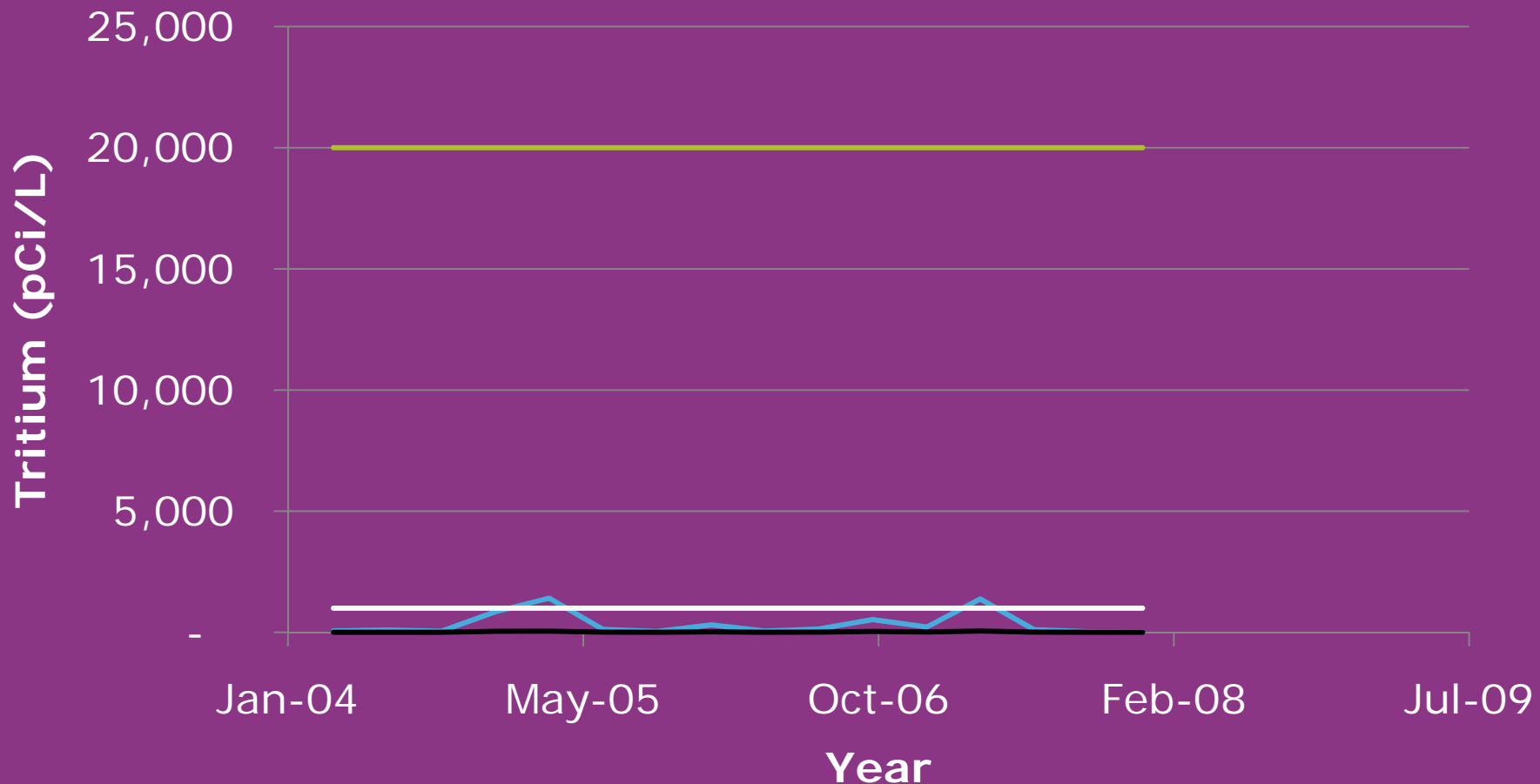


Radionuclides of Concern – Hypothetical Tritium Release, (cont'd.)

- Indian Point discharge levels resulting in 20,000 pCi/L (EPA MCL) at UWNYS proposed intake were calculated:
 - 1 hour release from IP, tritium at the intake: 11,200 Ci/day
 - 1 day release from IP, tritium at the intake: 2,590 Ci/day
 - 1 week release from IP, tritium at the intake: 664 Ci/day
 - 1 month release from IP, tritium at the intake: 485 Ci/day
 - Continuous release from IP, tritium at the intake: 175 Ci/day
- In 2007, IP released 1,468 Ci of tritium.



Radionuclides of Concern – Hypothetical Tritium Release, (cont'd.)



— IP3 Tritium — EPA MCL — EPA Detection Limit — Intake Tritium

Source: USNRC Effluent Database for Nuclear Power Plants.

Note: EPA has determined that the minimum detection level for water suppliers is 1,000 pCi/L.

Radionuclides Strategy

- Perceived Risk vs. Real Risk.
 - At found and calculated levels: low real risk, but high perceived risk.
 - Not a compliance issue.
 - Public credibility issues with Entergy, owner/operator of Indian Point (leaks, Vermont Yankee leaks, failed siren system).
- Engaged former Indian Point Certified Health Physicist and public health assessment firm.
- Engaged CIRSEE to evaluate the French perspective on nuclear power and water supplies.
- Not the first water treatment plant to be constructed near a nuclear power plant.
 - Contacting water treatment plant operators and state regulators with nuclear facilities upstream of water sources to determine best practices.

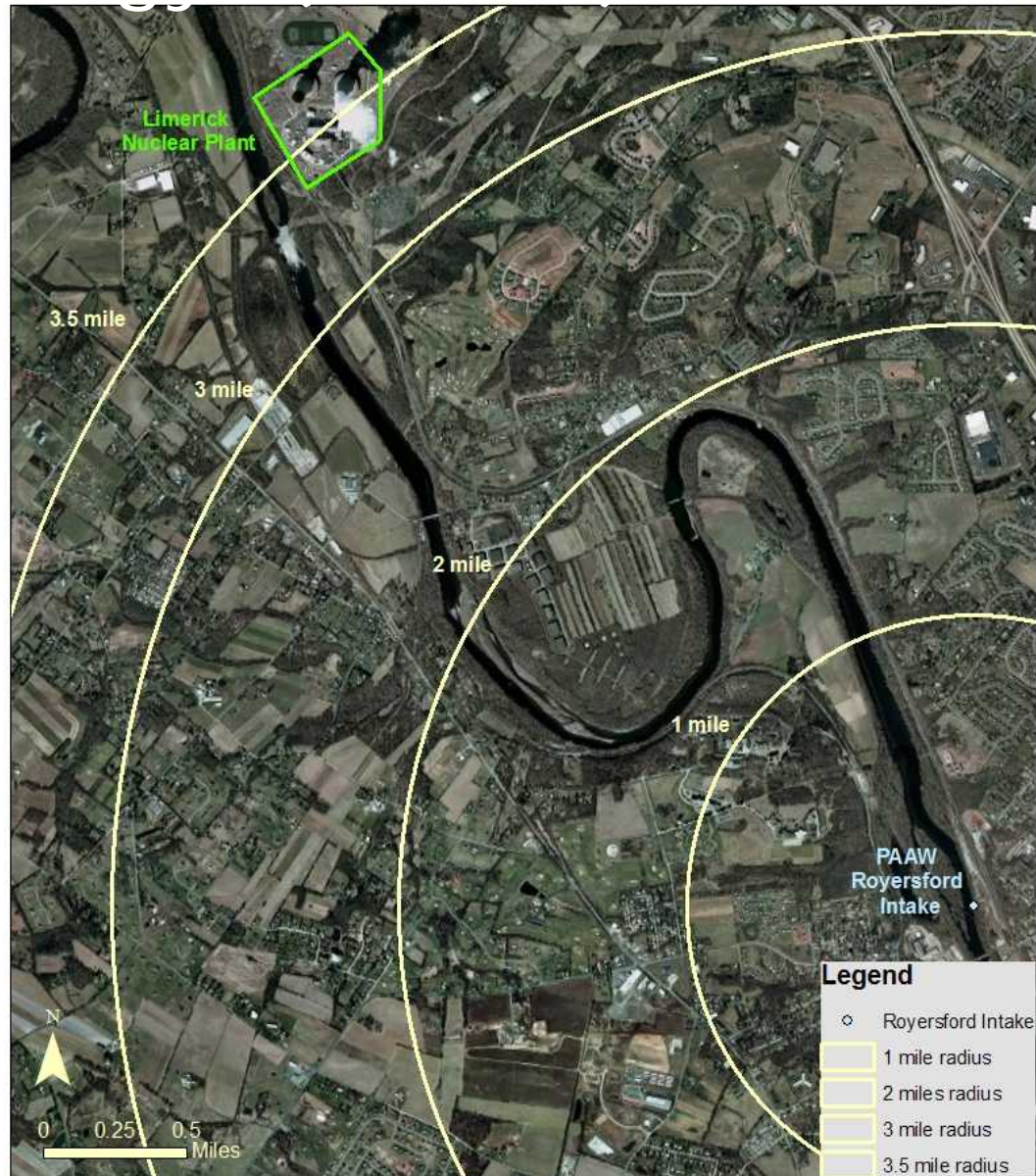


U.S. Locations of Nuclear Power Plants and Water Supply Intakes



Radionuclides Str

- PAAW Royersford WTP Intake is ~5.5 river miles from the Limerick Nuclear Facility.



Radionuclides Strategy, (cont'd.)

- Next steps...
 - Collect additional radionuclide data during pilot operations.
 - Obtain IP background sample results.
 - Additional CIRSEE involvement.
 - Engage risk communications firm to develop strategy to mitigate perceived risk.
 - Establish meeting with Entergy.
 - Develop early warning system/high frequency testing protocol.
- Issues to be decided:
 - Establish EPA MCL (20,000 pCi/L) as action level?
 - Frequency of radionuclide sampling.
 - Operating protocol.
 - Effect on project design and cost.



Project Cost



Project Costs

- Cost incurred thru 2009:
 - Direct costs: \$13,828K
 - Overhead: \$ 1,140K
 - AFUDC: \$ 1,915K
 - Total: \$16,883K
- MTP costs thru 2015 (without AFUDC)
 - Based on 2008 Black & Veatch construction and operation cost estimates included in the DEIS.

Thru 2009	2010	2011	2012 *	2013 **	2014 **	2015 **	2016 **	Total
16,883	9,315	5,896	9,827	16,076	45,262	40,000	5,500	142,602

* Includes property purchase.

** Construction costs for 2013 – 2016 based on 2008 \$s from DEIS.



Project Costs, (cont'd.)

- January 2007 PSC filing:
 - Project Development (i.e., thru 2012): \$ 11,700K
 - Land Purchase: \$ 4,000K
 - Construction: \$ 63,300K
 - Total: \$ 79,000K (B&V cost estimate)
- Projected project development costs (i.e., thru 2012) : \$41,156K.
 - Project development costs are independent of project, i.e., Ambrey or wastewater reuse would have same development costs.
- Difference between 2007 costs and current costs:
 - Pilot Study.
 - Extensive environmental impact review / permitting.
 - Separate intake and WTP sites.
 - Geotechnical needs, i.e., pile supported structures.
 - Intake construction requirements.



Outreach & Communications



Outreach/Communications - Status

- Special Interest Group Influence
 - January 5, 2010: Clarkstown Town Board permits Bob Dillon to present arguments against UWNy's management of Lake Deforest at workshop meeting
 - Other special interest group members raised concerns about radionuclides, cost (particularly advertising), need and conservation efforts
 - January 12, 2010: UWNy team presents at second board workshop followed by lengthy Q and A period.
 - Board members and special interest groups raise similar concerns
 - March 4, 2010: Town of Clarkstown drafts letter to DEC expressing concerns about the project (need, conservation, water quality, radionuclides, cost.)
 - Special interest groups may become vocal during rate case, opening of pilot and/or DEIS completion.
- Meetings, Presentations and Community Events
 - December 11, 2009: Meeting with Sen. Thomas Morahan
 - Various discussions with Assemblywoman Jaffee's staff
 - December 15, 2009 Rockland County Supervisors' Luncheon
 - January 5, 2010: Clarkstown Town Board workshop (Bob Dillon presentation)
 - January 12, 2010: Clarkstown Town Board workshop (UW presentation)



Outreach/Communications – Status, (cont'd.)

- Meetings, Presentations and Community Events
 - January 27, 2010: Meeting with Lamont-Doherty
 - February 5 – 7, 2010: Suburban Home and Garden Show
 - March 1, 2010: UWNY CAP
 - March 11, 2010: Rockland Riverfront Communities Council
 - March 16, 2010: HWSP CAP
 - TBD Nanuet Rotary
 - TBD South Orangetown Rotary
 - TBD Clarkstown senior club
 - TBD AARP Event
 - TBD Haverstraw Village neighborhood group



Outreach/Communications – Status, (cont'd.)

- Communications
 - Letters to the Editor
 - Calling upon friends to write letters of support
 - HDR/Mike Skelly letter to the editor re: management of Lake Deforest
 - Customer Information: Develop new talking points
 - Customer Newsletter
 - Radio ads
 - Direct Mail
 - E-mail letter





The Haverstraw Water Supply Project

Ensuring the Future of Rockland's
Water

www.unitedwater.com/hwsp

April 8, 2010 Presentation



Haverstraw Water Supply Project

Ensuring Rockland's Water

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
Work Product – Privileged & Confidential

Agenda



○ Project Status

- Project Cost and Schedule
- Project Controls
- Properties

○ Outreach & Communications

○ Meeting Objectives:

- Update the Steering Committee on the Project costs and status.
- Update/seek input from Steering Committee on the Project controls.
- Obtain Steering Committee direction for the USG and DSB Properties.
- Obtain Steering Committee direction for a Risk Communications firm.

PROJECT STATUS

Project Costs

○ Cost incurred thru 2009:

- Direct costs: \$ 13,828K
- Overhead: \$ 1,140K
- **Sub-total: \$ 14,968K**
- AFUDC: \$ 1,915K
- **Total: \$16,883K**

○ MTP costs thru 2016 (without AFUDC)

- Costs provided are for a 7.5 MGD facility.
- Based on 2008 Black & Veatch construction and operation cost estimates included in the DEIS.
- Construction costs for 2013 – 2016 based on 2008 \$s from DEIS, escalated to the mid-point of construction in 2014.

	Thru 2009	2010	2011	2012	2013	2014	2015	2016	Total
Project Cost	14,968	9,500	5,896	9,658	15,846	43,780	40,000	2,955	142,603

Project Costs, (cont'd.)

- September 2006: Joint Proposal Executed.
- December 2006: JP approved by PSC as part of Rate Order.
- January 2007 PSC filing HWSP costs: ¹
 - Development: \$ 11,700K
 - Land Purchase: \$ 4,000K
 - Construction: \$ 82,300K
 - **Total:** \$ **98,000K** ²
 1. Pilot Study costs not included in 2007 PSC Filing.
 2. 7.5 MGD, 2006 \$s developed by Black & Veatch.

Exhibit 4, January 15, 2007 Filing
(Note: Phase 1 = 2.5 MGD
Phase 2 = + 2.5 MGD)

Page 8, January 15, 2007 Filing
(Note: Phase 3 = + 2.5 MGD)

Exhibit 4
Hudson River Desalination Capital Costs

Project Element	Cost (\$)
Sitework	\$1,600,000
Intake Structure	\$3,000,000
Chemical Feed Building	\$1,300,000
Treatment Plant	\$18,900,000
Instrumentation	\$1,100,000
Electrical	\$4,400,000
General Requirements	\$3,500,000
Plant Sub-total	\$33,800,000
Distribution System Improvements	\$8,000,000
Plant and Distribution Sub-total	\$41,800,000
Engineering, Surveying, Geotechnical	\$6,300,000
Permitting, Legal, Outreach & Education	\$5,400,000
Land Purchase	\$4,000,000
Sub-total	\$15,700,000
Contingency (20%)	\$11,500,000
Phase 1 Total	\$69,000,000
Phase 2 Total	\$10,000,000
Hudson River Desalination Total	\$79,000,000

- **Phase 3:** (Complete Build-out) Expand the WTP to 7.5 mgd and complete distribution system improvements, all of which are estimated to cost \$19,000,000.

Project Costs, (cont'd.)

- 2007 costs are 2006 dollars.
- Pilot Study Costs not provided in 2007 filing.
- Phase 3 Costs not provided in Exhibit 4 of 2007 filing.
- 2010 costs are 2008 dollars.
- 2010 construction costs escalated mid-point of construction in 2014.
- 2010 Engineering, Survey, Geotechnical, Permitting, Legal, Outreach, & Education include Project costs incurred thru 2009.
- Sale of Ambrey Pond properties not included in 2007 or 2010 costs.
 - Ambrey Pond properties ~ \$20,000K

Project Element	January 2007 Filing (\$)	Adjusted January 2007 Filing (\$)	2010 Costs (\$)
Sitework	1,600,000	1,600,000	7,096,000
Intake Structure	3,000,000	3,000,000	5,807,000
Chemical Feed Building	1,300,000	1,300,000	2,435,000
Treatment Plant	18,900,000	18,900,000	20,058,000
Instrumentation	1,100,000	1,100,000	2,156,000
Electrical	4,400,000	4,400,000	5,390,000
General Requirements	3,500,000	3,500,000	3,396,000
Escalation	-	7,098,000	6,951,000
Phase 1 (2.5 MGD) Plant Sub-total	33,800,000	40,898,000	53,289,000
Distribution System Improvements	8,000,000	8,000,000	3,000,000
Escalation	-	1,680,000	450,000
Distribution Sub-total	8,000,000	9,680,000	3,450,000
Plant (2.5 MGD) and Distribution Sub-total	41,800,000	50,578,000	56,739,000
Engineering, Surveying, Geotechnical	6,300,000	6,300,000	15,011,000
Permitting, Legal, Outreach & Education	5,400,000	5,400,000	20,960,000
Land Purchase	4,000,000	4,000,000	4,000,000
Project Development Sub-total	15,700,000	15,700,000	39,971,000
Contingency	11,500,000	13,256,000	13,025,000
Phase 1 (2.5 MGD) Total	69,000,000	79,534,000	109,735,000
Phase 2 (5 MGD)	10,000,000	10,000,000	11,700,000
Escalation	-	2,100,000	1,755,000
Phase 2 (5 MGD) Total	10,000,000	12,100,000	13,455,000
Phase 3 (7.5 MGD)	19,000,000	19,000,000	16,881,000
Escalation	-	3,990,000	2,532,000
Phase 3 (7.5 MGD) Total	19,000,000	22,990,000	19,413,000
Hudson River Desalination Sub-total	98,000,000	114,624,000	142,603,000
Ambrey Pond Properties	(20,000,000)	(20,000,000)	(20,000,000)
Hudson River Desalination Total	78,000,000	94,624,000	122,603,000

Project Costs, (cont'd.)

- **Sitework Cost Increase:**
 - Soil conditions require pile supported structures.
 - Intake and WTP are on separate sites.
- **Intake Cost Increase:**
 - Intake location requires tunneling of intake pipe.
- **Chemical Feed Cost Increase:**
 - Membrane filtration requires additional chemicals for membrane cleanings.
- **Instrumentation Cost Increase:**
 - Membrane filtration.
 - Intake and WTP are on separate sites.
- **Electrical Cost Increase:**
 - Membrane filtration.
 - Intake and WTP are on separate sites.
- **Distribution System Cost Decrease:**
 - Reduced piping and pumping requirements due to site location
- **Project Development Cost Increase:**
 - Premium to expedite schedule/milestone compliance.
 - Pilot Study (not included in 2007 costs).
 - Extraordinary DEIS Scope requirements leading to extensive environmental impact review / permitting.
- **Contingency Decrease:**
 - Reduced to 15% from 20% due to Project site identification.

Project Element	January 2007 Filing (\$)	Adjusted January 2007 Filing (\$)	2010 Costs (\$)
Sitework	1,600,000	1,600,000	7,096,000
Intake Structure	3,000,000	3,000,000	5,807,000
Chemical Feed Building	1,300,000	1,300,000	2,435,000
Treatment Plant	18,900,000	18,900,000	20,058,000
Instrumentation	1,100,000	1,100,000	2,156,000
Electrical	4,400,000	4,400,000	5,390,000
General Requirements	3,500,000	3,500,000	3,396,000
Escalation	-	7,098,000	6,951,000
Phase 1 (2.5 MGD) Plant Sub-total	33,800,000	40,898,000	53,289,000
Distribution System Improvements	8,000,000	8,000,000	3,000,000
Escalation	-	1,680,000	450,000
Distribution Sub-total	8,000,000	9,680,000	3,450,000
Plant (2.5 MGD) and Distribution Sub-total	41,800,000	50,578,000	56,739,000
Engineering, Surveying, Geotechnical	6,300,000	6,300,000	15,011,000
Permitting, Legal, Outreach & Education	5,400,000	5,400,000	20,960,000
Land Purchase	4,000,000	4,000,000	4,000,000
Project Development Sub-total	15,700,000	15,700,000	39,971,000
Contingency	11,500,000	13,256,000	13,025,000
Phase 1 (2.5 MGD) Total	69,000,000	79,534,000	109,735,000
Phase 2 (5 MGD)	10,000,000	10,000,000	11,700,000
Escalation	-	2,100,000	1,755,000
Phase 2 (5 MGD) Total	10,000,000	12,100,000	13,455,000
Phase 3 (7.5 MGD)	19,000,000	19,000,000	16,881,000
Escalation	-	3,990,000	2,532,000
Phase 3 (7.5 MGD) Total	19,000,000	22,990,000	19,413,000
Hudson River Desalination Sub-total	98,000,000	114,624,000	142,603,000
Ambrey Pond Properties	(20,000,000)	(20,000,000)	(20,000,000)
Hudson River Desalination Total	78,000,000	94,624,000	122,603,000

Project Costs, (cont'd.)



○ **Projected Project Development Costs (i.e., thru 2012), not including land purchase: \$36,022K.**

- Baseline costs, i.e., scope or schedule revisions could adjust Projected Project Development Costs.
- Premium to expedite schedule/milestone compliance.
- NYSDEC:
 - Region 3 senior staff strongly aligned with special interest groups.
 - Region staff impartiality compromised.
 - Significant delays.
 - Extraordinary DEIS Scope requirements leading to extensive environmental impact review / permitting.
- Failure to meet “best efforts” obligations / detrimental actions / opposition by Parties to 2006 Joint Proposal.
- Pilot Study (not included in 2007 costs).
- Separate intake and WTP sites.
- Geotechnical needs, i.e., pile supported structures.
- Intake construction requirements.
- Project development costs are independent of project, i.e., Ambrey or wastewater reuse would have similar development costs. Note: Ambrey Pond costs are detailed later in the presentation.

Project Costs, (cont'd.)



○ Factors that could impact range of final Project Cost: *

- Pilot Study: Scale-down or elimination of certain processes potentially resulting in cost reductions.
- Engineering: Potential refinements of project design that achieve cost reductions.
- Government Agencies: Lead Agency and other governmental entities have broad discretion to mandate minor modifications (i.e., size of intake screens) or fundamental changes to the Project (i.e., Project choice or location).
- Adjudicatory Hearing: Given the nature of the Project, likely to occur. Extent dictated by Lead Agency.
- Litigation.
- Sustainable design features and alternative energy.
- Community amenity.
- Site conditions.

* These factors are independent of the selected Project.

Ambrey Pond Costs

- 2007 costs are 2006 dollars.
- Pilot Study Costs not provided in 2007 filing.
- Phase 3 Costs not provided in Exhibit 2 of 2007 filing.
- 2010 costs are 2008 dollars.
- 2010 construction costs escalated to 2013.
- 2010 Engineering, Survey, Geotechnical, Permitting, Legal, Outreach, & Education includes all costs incurred thru 2009.

Project Element	January 2007 Filing (\$)	Adjusted January 2007 Filing (\$)	2010 Costs (\$)
Stony Point Dam	5,100,000	5,100,000	5,457,000
Stony Point Water Treatment Plant	6,300,000	6,300,000	8,385,000
Stony Point Site Improvements	7,600,000	7,600,000	8,785,000
Ambrey Pond Dam WS 280	9,400,000	9,400,000	9,849,000
Ambrey Pond Ancillary Requirements	3,600,000	3,600,000	4,792,000
Diversion	8,300,000	8,300,000	10,648,000
Project Ancillary Costs	8,000,000	8,000,000	16,371,000
General Requirements	3,600,000	3,600,000	3,594,000
Escalation	-	10,900,000	10,182,000
Plant Sub-total	51,900,000	62,800,000	67,881,000
Distribution System Improvements	2,000,000	2,000,000	2,662,000
Escalation	-	420,000	559,000
Distribution Sub-total	2,000,000	2,420,000	3,221,000
Plant (2.5 MGD) and Distribution Sub-total	53,900,000	65,220,000	71,102,000
Engineering, Surveying, Geotechnical	8,100,000	8,100,000	15,011,000
Permitting, Public Relations	5,000,000	5,000,000	20,960,000
Land Purchase	10,000,000	10,000,000	12,100,000
Project Development Sub-total	23,100,000	23,100,000	48,071,000
Contingency (20%)	15,400,000	17,670,000	23,835,000
Phase 1 (2.5 MGD) Total	92,400,000	105,990,000	143,008,000
Phase 2 (5 MGD)	5,000,000	5,000,000	15,667,000
Escalation	-	1,050,000	3,290,000
Phase 2 (5 MGD) Total	5,000,000	6,050,000	18,957,000
Phase 3 (7.5 MGD)	72,000,000	72,000,000	61,536,000
Escalation	-	15,120,000	12,923,000
Phase 3 (7.5 MGD) Total	72,000,000	87,120,000	74,459,000
Ambrey Pond Total	169,400,000	199,160,000	236,424,000

Project Controls



○ Oracle Primavera currently being utilized.

- "...the recognized standard for high-performance project management software, is designed to handle large-scale, highly sophisticated and multifaceted projects."
- "...full lifecycle risk analytics solution integrating cost and schedule risk management. Primavera Risk Analysis provides a comprehensive means of determining confidence levels for project success together with quick and easy techniques for determining contingency and risk response plans."
- Phase I: Engineering and design functions (complete and continuously updated)
- Phase II: EIS and permitting (ongoing, expected completion May 2010)

○ Management Controls & Reporting

- Weekly: Technical Team and UW Project Team
- Bi-Weekly: Project Sponsors (J. Dyksen, M. Pointing)
- Monthly: Project Team
- Bi-Monthly: Steering Committee

Properties



○ Pilot Study

- Intake: U.S. Gypsum Property (Lease)
- Raw Water Pipeline: Partially through Haverstraw Joint Regional STP (License)
- Pilot Facility: DSB Realty Property (Lease)

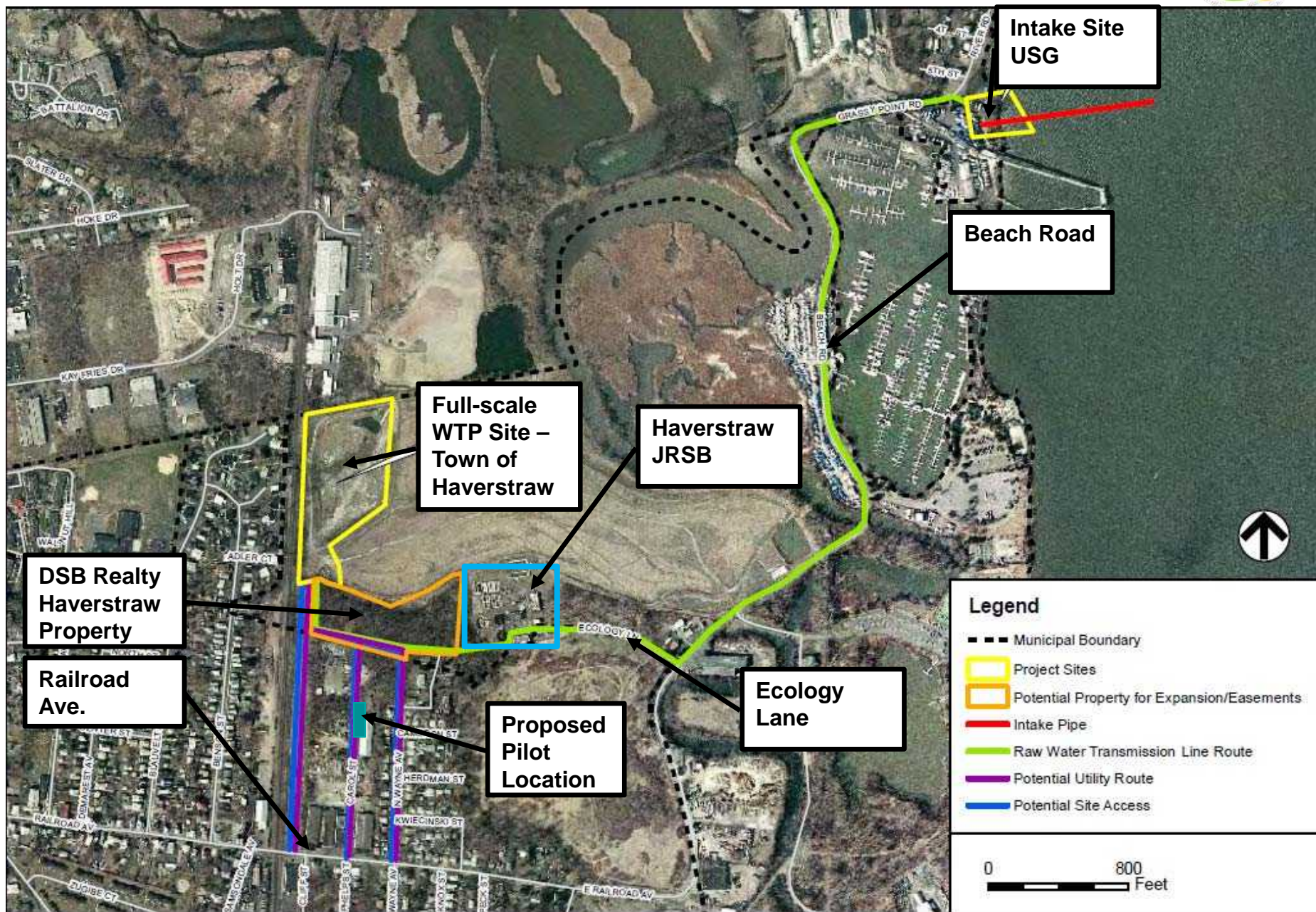
○ Full-Scale

- Intake: U.S. Gypsum Property (Option)
- Raw Water Pipeline & Utilities: Partially through Haverstraw Joint Regional STP (Option) and DSB Realty Property
- Water Treatment Plant: Town of Haverstraw Property, adjacent to Haverstraw Landfill (Option)

○ Option Strategy

- U. S. Gypsum
- Town of Haverstraw
- JRSB
- DSB Realty

Properties, (cont'd.)



United States Gypsum



○ Strategic importance of USG property

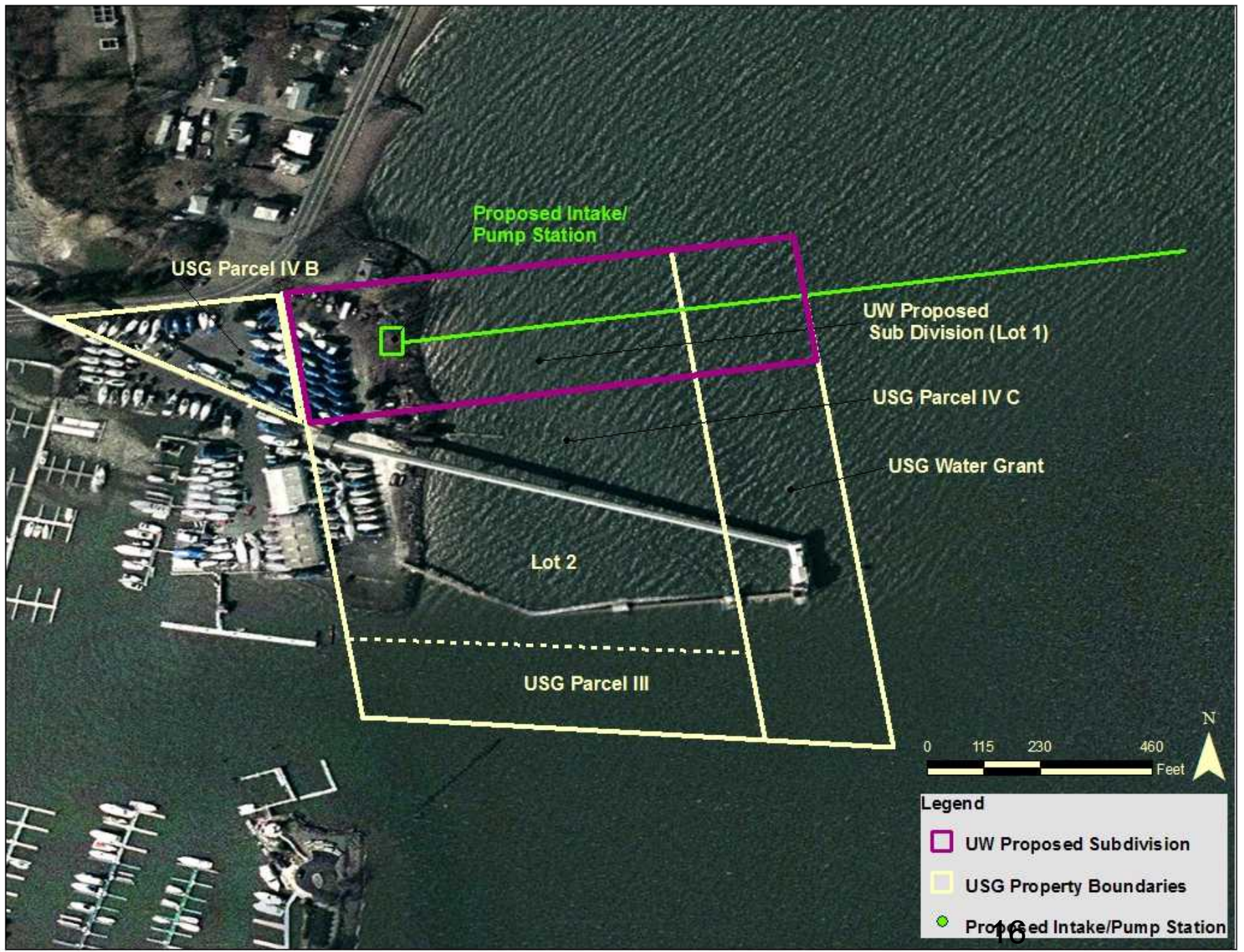
- Abuts Hudson River.
- Proximity to WTP and JRSTP site.
- Water quality buoy site and entrainment and impingement study area.
- No parkland designation.
- Continuous ownership to state-owned waters.

○ Property Value

- Lease value: \$32,580 annually
- UWNY purchase appraisal: \$580,000 (May 2008)
- USG purchase appraisal: \$500,000 (May 2009)

USG, (cont'd.)





Proposed Intake/
Pump Station

USG Parcel IV B

UW Proposed
Sub Division (Lot 1)

USG Parcel IV C




USG Water Grant

Lot 2

USG Parcel III



Legend

-  UW Proposed Subdivision
-  USG Property Boundaries
-  Proposed Intake/Pump Station

USG, (cont'd.)



○ Meeting rescheduled to April 20, 2010 from April 13.

- USG Representatives
- UWNV Representatives
- Haverstraw Supervisor/Town Attorney
- Agenda Items:
 - Pilot Lease
 - Purchase Option

○ Potential Meeting Outcomes

- USG agrees to immediate lease and option agreement
- USG agrees to immediate lease and defers decision on or refuses to immediately execute an option agreement
- USG refuses to immediate lease and to either execute an option agreement or a sales agreement

USG, (cont'd.)



○ Risks if the USG property is not secured:

1. Pilot Study: Schedule will be significantly impacted.
 - New property and land-use approvals will have to be secured.
 - NYSDEC, NYSDOS, and ACOE will have to re-issue approvals.
 - Pipeline will have to be re-routed to new location.
 - Additional costs will be incurred.
 2. Full-Scale:
 - DEIS will be delayed until new property is secured.
 - DEIS issues relating to scoping and test data will come into play.
 - Additional costs will be incurred.
- There is a high risk to the Project if the USG property is not promptly secured for both the Pilot and Full-Scale Project intakes.

○ March 19 Steering Committee meeting

- As discussed, UWNY has invested significant resources and time to progress the Pilot and Full-Scale projects using the USG property as the intake location based on USGs repeated representations over the course of 2-years that it was willing to enter into a lease and option agreement with UWNY.

○ Recommendations

- Provide USG with short deadline (i.e., 7 – 10 days) to agree to enter into lease and option agreement.
- If USG refuses to enter into lease and option agreement, or to immediately sell the property to UWNY, have the Town of Haverstraw initiate condemnation proceedings.
 - Both UWNY and the Town of Haverstraw possess eminent domain powers. The process of condemnation is more streamlined for municipalities. UWNY has discussed condemnation by the Town of Haverstraw with the Town Supervisor and has received conceptual support.

○ Option Agreement

- Option Payment #1: \$75K paid on February 2010, held in escrow until environmental review is complete.
- Option Payment #2: \$75K due on April 18, 2010, which extends option term to December 31, 2010.
- Option Payment #3: \$50K due on January 31, 2011, which extends option term to December 31, 2011.
- Purchase: \$1,300K due on January 31, 2012.
- Option payments applicable to purchase price, but not refundable if purchase agreement is not executed.

○ Formal Phase II environmental site assessment report issued to UWNY.

- Findings consistent with industrial property of this type.

○ December 9, 2009 Steering Committee Meeting

- Purchase Money Mortgage discussed as alternative to Option Agreement.

DSB Realty, (cont'd.)



○ Recommendation

- Defer action on Purchase Money Mortgage
 - Cost savings.
 - Lower risk of environmental liability.
 - Presence of Pilot facility allows UW to monitor DSB.
- Make Option Payment #2, which releases Option Payment #1 from escrow.

OUTREACH & COMMUNICATION

Risk Communications



- **Perceived Risk vs. Real Risk.**
- **At found and calculated levels: low real risk, but high perceived risk.**
- **Not a compliance issue.**
- **Public credibility issues with Entergy, owner/operator of Indian Point (leaks, Vermont Yankee leaks, failed siren system).**
- **The Center for Risk Communication**
 - Vincent Covello, PhD.
 - Columbia University Associate Professor of Environmental Sciences and Clinical Medicine.
 - Sr. Scientist at the White House Council on Environmental Quality.
 - Director, Risk Assessment Program, National Science Foundation.
 - Use behavioral science knowledge and research to develop communications strategies for high risk or high concern environmental and public health issues.

Risk Communications, (cont'd.)



○ Proposed Scope of Work

- Risk Communication Training.
- Assistance in Developing or Shaping Messages.
- Development of a Risk Communication Toolkit.
- Appearances at public meetings.
- Rate: \$200 – \$400/hr
- Proposed upper limit: \$10,000



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June 14, 2010 Presentation



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Agenda



○ Project Status

- Property
- Pilot Study
- DEIS
- Outreach & Communications
- Project Cost and Schedule

○ UWNY HWSP Public-Private Partnership

○ Suez Environnement Lookback

○ Meeting Objectives:

- Brief Steering Committee on Project status.
- Obtain guidance from Steering Committee on testing an early warning system during the Pilot Study.

PROPERTY

Properties



○ Pilot Study

- Intake: U.S. Gypsum Property (Lease)
- Raw Water Pipeline: Partially through Haverstraw Joint Regional STP (License)
- Pilot Facility: DSB Realty Property (Lease)

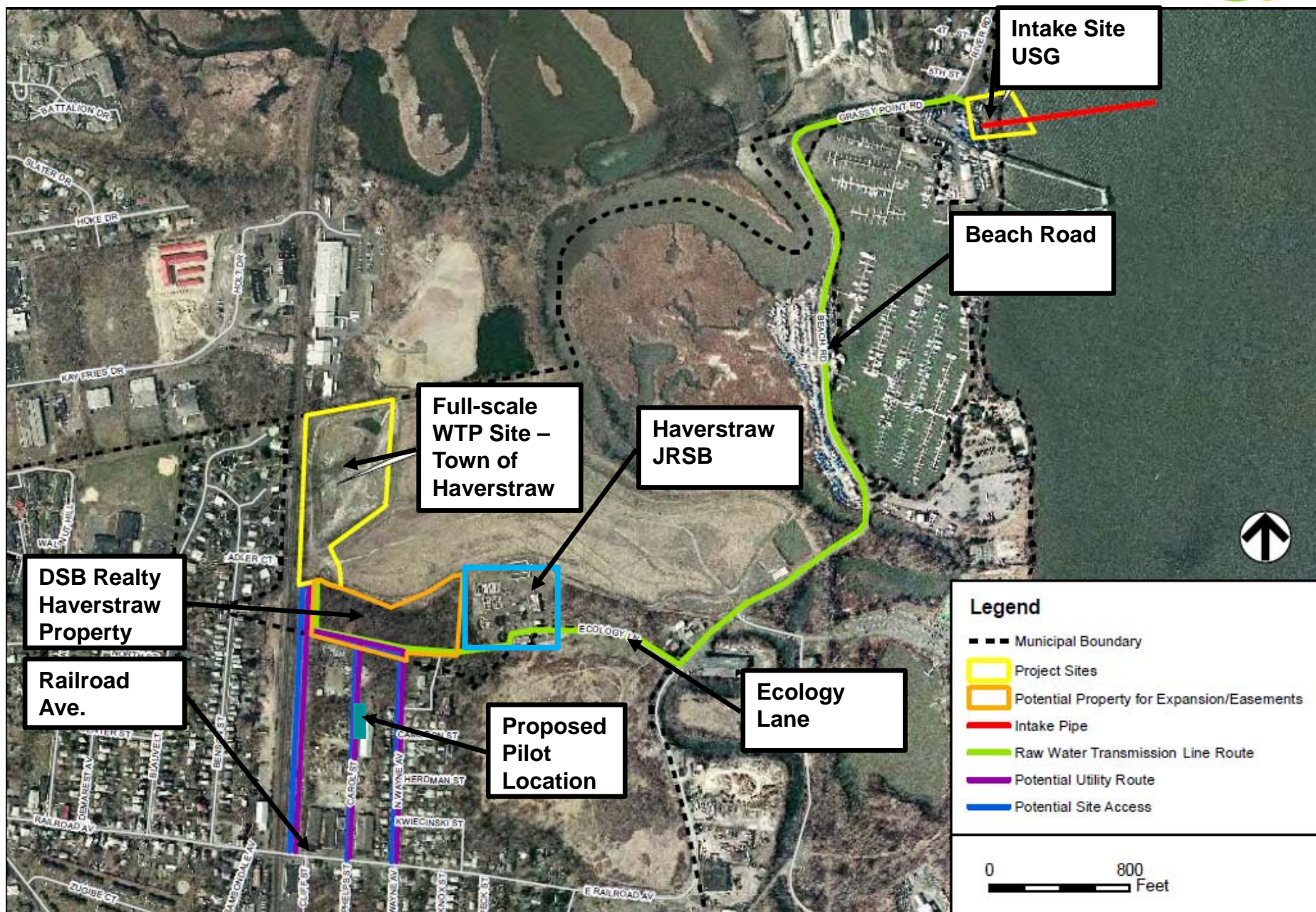
○ Full-Scale

- Intake: U.S. Gypsum Property (Option)
- Raw Water Pipeline & Utilities: Partially through Haverstraw Joint Regional STP (Option) and DSB Realty Property
- Water Treatment Plant: Town of Haverstraw Property, adjacent to Haverstraw Landfill (Option)

○ Option Strategy

- U. S. Gypsum
- Town of Haverstraw
- JRSB
- DSB Realty

Properties, (cont'd.)



U. S. Gypsum



○ April 20, 2010

- Attendees:
 - UWNH HWS Project Team
 - Haverstraw Supervisor Howard Phillips
 - U.S. Gypsum (“USG”) Corporate Officials
- Agenda Items:
 - Pilot Lease
 - Purchase Option
- Discussion Points:
 - UWNH and Supervisor Phillips insisted upon immediate action following multi-year delay by USG.
 - Sup. Phillips articulated resolve to condemn property if USG did not immediately agree to enter into agreements.
 - USG Agreed to voluntarily lease/option agreement and to facilitate by retaining outside counsel.

U. S. Gypsum, (cont'd.)



○ USG Agreement Comments

- Lease Agreement: extensive mark-up (ranging from immaterial to unreasonable) received May 24th.
- Option Agreement: extensive mark-up (ranging from immaterial to unreasonable) received June 3rd.
- Meeting Request – June 10: UWNY requests in person meeting for line-by-line review of Lease/Option Agreement. USG agrees to UWNY meeting request.

○ Risks

- Compounding delays.
- Condemnation: legal fees if agreement cannot be reached.

Town of Haverstraw – WTP Site

- Town has deposited approx. 15,000 cubic yards of spoils at the proposed WTP site.
- NYSDEC has classified spoils as C&D material due to the fact that the property is part of a closed landfill subject to a closure plan.
- UWN Y retained consultants are working with the Town's retained consultants to develop a cost effective proposal to present to the NYSDEC to deal with the spoils.
- Goal is to develop a resolution that is acceptable to the NYSDEC, the Town, and UWN Y.
 - Favorable resolution is important because it impacts the economic viability of the property.
 - Appraisal = \$1,100K for 8.65 acres.
- Risk
 - NYSDEC approved remediation is expensive and the Town looks to UWN Y to shoulder the costs above and beyond the appraised purchase price.
 - Mitigation: UWN Y taking leadership role to resolve this matter.

PILOT STUDY

Pilot Study



○ Construction Status:

- Intake
 - Pending USG Agreement.
 - 6 – 8 weeks from start of construction to begin operations.
- Pilot Facility:
 - Complete: Awaiting river water for testing/startup.

○ Optional Pilot Facility Enhancement

- Tritium Monitor
 - Online tritium monitor providing analysis to 1,000 pCi/L in 3 hrs.
 - Cost: \$250,000 - \$300,000 (not installed).
 - 16 – 20 weeks delivery.

DRAFT ENVIRONMENTAL IMPACT STATEMENT

Draft Environmental Impact Statement



○ Status of Revisions to 2008 DEIS

- Early Chapters: 5 Chapters sent to NYSDEC June 10, 2010.
- Intermediate Chapters: Target to NYSDEC early July.
- Final Chapters: Target to NYSDEC end of July.
- Target to have all Chapters submitted in June impacted by:
 - Competing Project priorities: Pilot construction, USG, Haverstraw Landfill.
 - Rate Cases, staffing changes, cash flow/budget requests, etc.
 - Additional field analysis as a result of scoping requirements and design advancement.

○ July – November 2010 (estimated): NYSDEC review DEIS against the Scope.

○ November 2010 – February 2011 (estimated): NYSDEC to determine the DEIS is complete, issue draft permits, and begin public comment period.

○ February – April 2011 (estimated): Public comment period.

○ April – June 2011 (estimated): Prepare and submit Final EIS addressing public comments to NYSDEC.

○ June – July 2011 (estimated): NYSDEC to determine Final EIS is complete and publish FEIS.

○ July – September 2011 (estimated): Agencies to issue findings statement and permits.

Draft Environmental Impact Statement, (cont'd.)



○ Factors that may effect this schedule:

- NYSDEC and other approval agency cooperation.
- Adjudicatory hearing.
- Stakeholder support (elected officials, state agencies, Joint Proposal parties, customers, etc.).
- Allocation of UW resources.

○ Water Demand Projections

- NY ECL § 15-1503(2) – Water Supply Permits: “In making its decision to grant or deny a permit or to grant a permit with conditions, the department shall determine whether the proposed project is justified by the public necessity...”
- “The 2006 rate case adopted a Joint Proposal that instructs United Water New York to develop 7.1 million gallons per day of additional peak capacity. It was determined that this additional water supply was needed even though substantial evidence to the contrary exists.”

Ned Sullivan, Executive Director, Scenic Hudson 5/3/10.

- 2006 Joint Proposal Demand Projections compare favorably to projections using alternative methods, i.e., per-capita projections and unit-use projections.
- 2006 Projections in-line with alternative projections. No change in projections required.

Draft Environmental Impact Statement, (cont'd.)



○ Early Warning System

- In-river water quality buoys.
- Online tritium monitor.
- Investigating potential benefits/collaborative opportunities with the Beacon Institute's River and Estuary Observation Network (REON).

○ Ambrey Pond

- January 2007 PSC filing and 2008 DEIS evaluated “modified” Ambrey Project providing <7.5 mgd safe yield.
- Revised DEIS evaluates 7.5 mgd safe yield Ambrey Project (i.e., the original Ambrey), with the “modified” Ambrey Project evaluated in combination with other alternatives.

○ Risks

- Government Agencies: Lead Agency and other governmental entities have broad discretion to mandate minor modifications (i.e., size of intake screens) or fundamental changes to the Project (i.e., Project choice or location).
- Adjudicatory Hearing: Given the nature of the Project, likely to occur. Extent dictated by Lead Agency.

OUTREACH & COMMUNICATIONS

○ Rockland County Developments

- County Executive
 - County Executive (“CE”) Vanderhoef has been selected as the Republican candidate for the New York State Senate currently held by Sen. Thomas Morahan, who is retiring.
 - If Vanderhoef is elected, he will vacate the CE’s Office in January 2011. The County Legislature is authorized to appoint an interim CE, who will hold the office until a special election in November 2011.
- Loss of Industry
 - Pfizer (Wyeth)
 - U. S. Gypsum
 - Mirant (Lovett, Bowline)

○ Use of Pilot as Outreach tool

- Key Audiences: elected officials, community leaders, media, regulators, school groups, and customers.
- Invitation only tours, meetings and discussions.
- Educational tools: Message boards, PowerPoint presentation, video, and brochures.

○ Community Partnerships

Opposition Playbook



○ **Local Groups – pervasive, persistent, mobilized.**

- Need / Conservation
- Energy
- Water to New Jersey
- Public Health: water quality, i.e., radionuclides.
- Review process
- Drive-up costs: expand project scope, adjudicatory hearing
- Loss of industry

○ **Regional / National / International Groups – strategic, purposeful.**

- Demonization: multi-national company, anti-privatization, water is human right, poor community partner
- Need/Conservation
- Energy
- Public Health: water quality, i.e., radionuclides
- Effort to link to Indian Point
- Drive-up costs: expand project scope, adjudicatory hearing

Project Messaging



○ Message framework

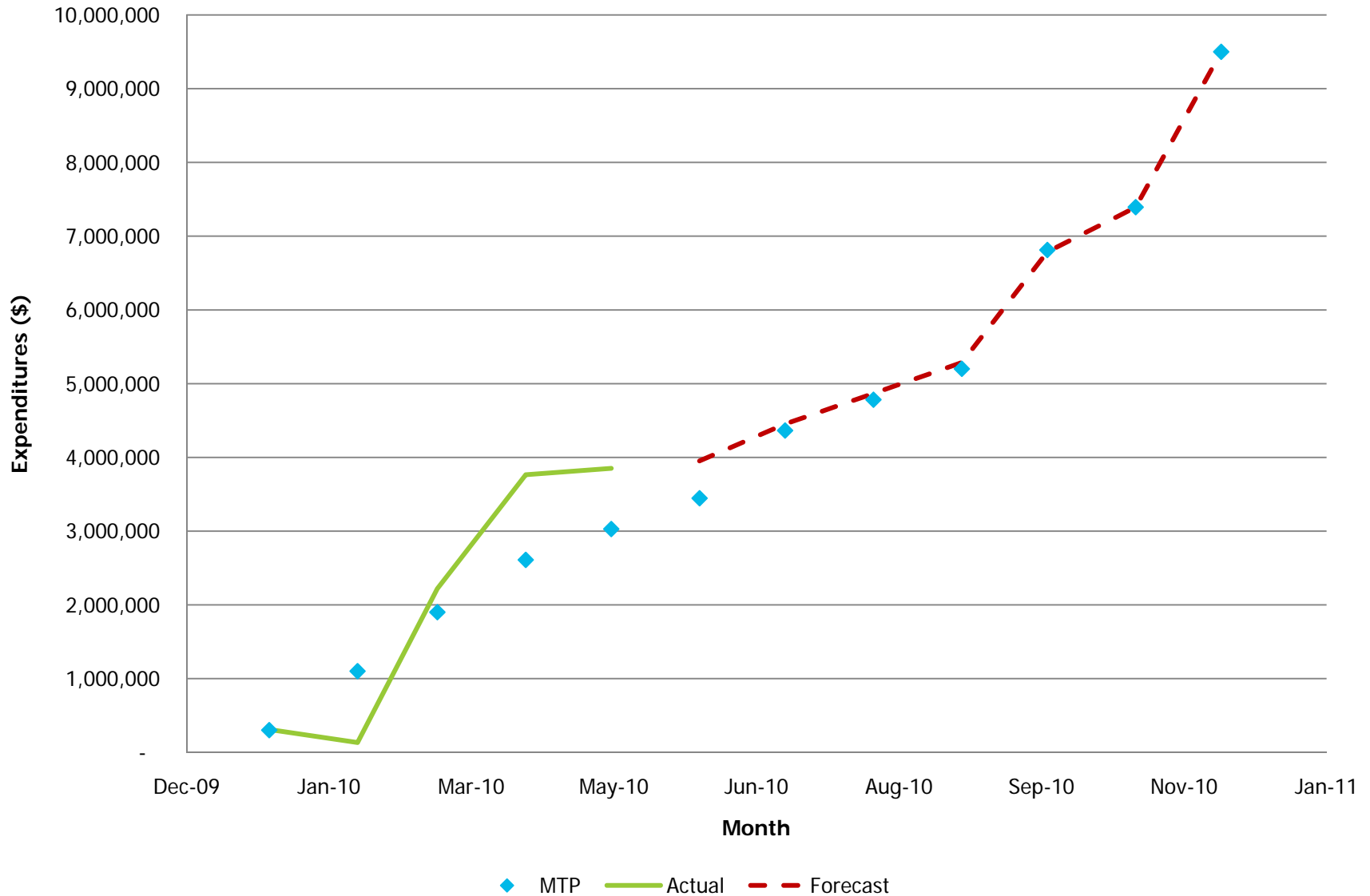
- Goal: develop well vetted messages that can be used consistently applied across all communications channels.
- Water quality
- Monitoring for potential contaminants
- Cost and value of water
- Reliability of supply
- Economic development
- Energy, conservation, sustainability
- Environmental sensitivity
- Community partnerships

PROJECT COST AND SCHEDULE

Project Cost



UWNY HWSP Actual Expenditures vs. 2010 Plan



Project Schedule



	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Pilot Construction																								
Baseline																								
Revised																								
Pilot Operations																								
Baseline																								
Revised																								
DEIS Revision																								
Baseline																								
Revised																								
DEIS Review/Public Comment																								
Baseline																								
Revised																								

UWNY HWSP PUBLIC- PRIVATE PARTNERSHIP

Public-Private Partnership



○ Dewey LeBoeuf Legal Analysis

- Absent a change in New York State law, no government body in Rockland County has the legal authority to develop the HWSP on behalf of UWNY.
- UWNY would have to partner with a government body with the will, bonding capacity, and risk tolerance.
- UWNY would not be relieved of its milestone commitments or minimum service standards if a government body delivered the HWSP.



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Haverstraw Water Supply Project

Steering Committee Meeting
October 6, 2010

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Agenda



○ Project Status

- Project Cost and Schedule
- Pilot Study
- DEIS Status and Key Issues

○ Stakeholder Management Plan

○ Stakeholder Management Plan – Additional Details

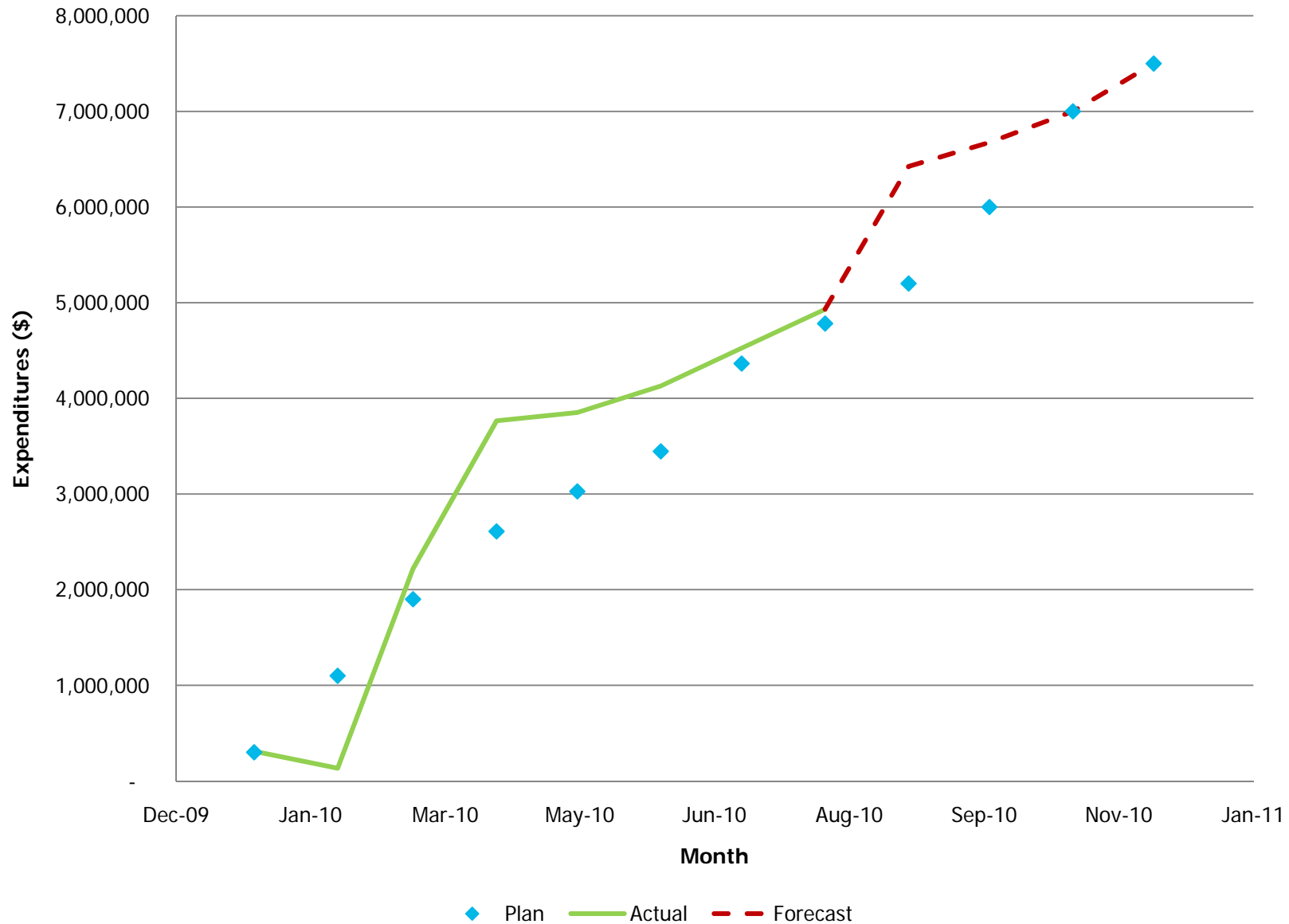
- Slides presented at the August 16, 2010 Steering Committee meeting with current progress shown.

○ Meeting Objectives

- Brief Steering Committee on Project status.
- Brief/obtain guidance from Steering Committee on key DEIS issues.
- Brief/obtain guidance from Steering Committee on Stakeholder Management Plan.

PROJECT COST & SCHEDULE

Project Cost



Project Schedule



	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Pilot Construction																								
Baseline																								
Revised																								
Pilot Operations																								
Baseline																								
Revised																								
DEIS Revision																								
Baseline																								
Revised																								
DEIS Review/Public Comment																								
Baseline																								
Revised																								
Stakeholder Management																								
Baseline																								
Revised																								

PILOT STUDY

○ Construction Status:

- Intake
 - USG Agreement executed.
 - Construction of intake underway.
 - Target construction completion: October 28th.
- Pilot Facility:
 - Complete: Awaiting river water for testing/startup.

○ Target operations start: November 2010.

- Risk: Orange & Rockland electric service installation.
 - Mitigation: Ongoing coordination with O&R. As of September 30th per O&R current schedule is to have electric service installed the 3rd week of October.

DRAFT ENVIRONMENTAL IMPACT STATEMENT

○ **Draft Environmental Impact Statement currently being revised.**

- To date, 5 chapters of 23 chapters submitted
- 12 chapters ready to be submitted, however, discussion in remaining 6 chapters is useful in reviewing these chapters.

○ **DEIS Key Issues**

- Availability of data from the Pilot Study.
- SPDES permit for reverse osmosis concentrate (brine) discharge to Haverstraw Joint Regional Sewage Treatment Plant.
- DEIS represents Project that has the most significant environmental impact and highest costs.
- Submission schedule.

○ Pilot Data

- DEIS Scope references data from the Pilot Study in several locations
 - “Data from pilot plant operations will be included in this analysis but need not be the sole basis for it.”
 - “...data from pilot plant operation may be used to augment this analysis.”
 - “...supported by any information derived from pilot operations.”
- NYSDEC has indicated that it will require data from the Pilot Study be included in the analyses in the DEIS.
- Risk: Until statistically reliable data from the Pilot Study is available the DEIS will not be “complete” for public review.
 - Mitigation: Revise pilot operations plan to provide statistically reliable data for the DEIS, then provide additional engineering/design data.

DEIS Key Issues, (cont'd.)



○ Reverse Osmosis Brine Discharge

- 2008 DEIS discussed blending of brine with Haverstraw Joint Regional Sewage Treatment Plant (“JRSTP”) effluent prior to chlorination of JRSTP effluent.
 - Initial guidance from NYSDEC and JRSTP: brine discharge covered under the Industrial Pre-treatment Program (“IPP”).
- NYSDEC in consultation with EPA notified JRSTP that all wastes covered under IPP must be introduced to the head of the JRSTP so the wastes undergo full treatment.
 - UW conducted a national survey of sewage treatment plants (“STP”) to identify any STP that received wastes under the IPP not at the head of the STP. No plants were identified.
 - Introducing the brine to the head of the JRSTP could adversely impact the JRSTPs treatment process.
- The NYSDEC informed the JRSTP that the if the brine was to be blended with the JRSTPs effluent it would have to occur after their compliance sampling point, i.e., after chlorination/de-chlorination.
 - The JRSTPs new SPDES permit requires the JRSTP to de-chlorinate their effluent by May 2012. The JRSTP plans to de-chlorinate off-site, i.e., at the Haverstraw Marina, prior to the effluent being discharged to the Hudson River.

DEIS Key Issues, (cont'd.)



○ Reverse Osmosis Brine Discharge, (cont'd.)

- This change in the NYSDECs position will require:
 - UW to obtain SPDES permit: using the intake as an outfall or discharging to the JRSTPs outfall; or
 - UW to discharge to JRSTPs outfall and JRSTP to modify its SPDES permit.
- Risks: Additional CAPEX will be required to construct chlorination and de-chlorination facilities at the JRSTP, and potentially stranded JRSTP assets.

DEIS Key Issues, (cont'd.)

- In order to mitigate risks, the DEIS represents Project that has the **most significant environmental impact** and **highest costs**.
 - Changes that reduce the Project scope generally do not require additional environmental review, e.g., elimination of pre-treatment.
 - Changes that expand the Project scope do require additional environmental review.
 - Cost range to be presented in DEIS is based on:
 - Full build-out, 7.5 MGD;
 - In anticipation of permitting requirements, mitigation of environmental impacts to the extent practical;
 - 10% design;
 - Geotechnical soil boring program for entire Project;
 - Premium costs associated with meeting December 2015 milestone;
 - Equipment quotes from equipment manufacturers; and
 - Construction costs reviewed by J. F. Creamer.

DEIS Key Issues, (cont'd.)



○ DEIS Submission Schedule

- Draft Environmental Impact Statement currently being revised.
 - To date, 5 chapters of 23 chapters submitted
 - 12 chapters ready to be submitted, however, discussion in remaining 6 chapters is useful in reviewing these chapters.
- Target completion date: October 15th.
- Risks: DEIS used by politicians as a political issue prior to Election Day.
 - Mitigation: Submit all chapters except select strategic chapters.
 - NYSDEC claims it could keep submission confidential, however, UW legal review indicates that submission would be subject to Freedom of Information Law.

STAKEHOLDER MANAGEMENT PLAN

Stakeholder Management Plan: Progress Summary



- **Message boards for Pilot and public presentations**
 - Draft boards completed, production to be completed in October.
- **Pilot facility ribbon-cutting**
 - Tentative date of 11/23.
- **Pilot facility tours**
 - CAP tour, specialized groups and others to be arranged, in conjunction with Pilot operations.
- **Direct mail newsletters**
 - On target for October and March/April mailings.



Stakeholder Management Plan: Progress Summary



○ Develop and implement lesson plans

- Target: December for creation of a program and implementation in 1st Quarter 2011.

○ Direct mail postcards

- Cards distributed to Haverstraw 9/23. County-wide cards targeted for November.

○ Develop new radio spots

- Audio drafts completed, planned launch in October.

○ Run TV spots

- Previously produced spots running since September.



Stakeholder Management Plan: Progress Summary, (cont'd.)

○ Customer Advisory Panels

- UWNY CAP completed tour of Pilot; HWSP CAP to meet at Pilot 10/12.

○ Email newsletter blast

- Lake DeForest management to launch October.

○ Update project website

- In conjunction with DEIS submission.

○ Local Government Affairs

- Invitations to present to legislative bodies in Rockland underway.

○ State and National Government Affairs

- Project team identified candidate for state Executive branch, external affairs to identify additional candidates. Solicitation of qualifications and interviews to follow.

○ NY PAC

- Employee meeting held 9/23; vendor event in 2010.

○ CEO Roundtable

- Steering Committee direction on approach requested.

Stakeholder Management Plan: Progress Summary, (cont'd.)

○ Media Management

- Press release on USG Agreement issued 9/15.
- Op-ed on Lake DeForest management for review by 10/15.

○ Specialized Stakeholder Group Management

- NGO Advocacy groups to be invited to Pilot in conjunction with Pilot operations.
- Respond to NGO Advocacy group comments in media: Ongoing.

○ Internal Awareness

- Plan being developed, implementation in 1st Quarter 2011

○ Executive Participation

- Key executives attended NYSDEC meeting on 9/30.
- Dinner meeting with Haverstraw Sup. Phillips to be arranged.
- CEO Roundtable.

○ Plan Measurement

- Project Team and Sponsor meeting with pollster John McLaughlin on 9/15.
- Steering Committee direction on approach requested.

Stakeholder Management Plan: Progress Summary, (cont'd.)



Billboards

- Steering Committee direction on approach requested.



Stakeholder Management Plan: Progress Summary, (cont'd.)

○ **Print Ad**

- Steering Committee direction on approach requested.

○ **Public Presentations**

- Ongoing.

○ **Enlisting Scientists/Experts**

- Discussion commenced with Dr. Timothy Kenna, Lamont Doherty

○ **Website Enhancements**

- Website creative group has recommended an upgrade to website design to enhance appeal.
- Search Engine Optimization Study.
- Completed study indicates website users do not use search engines to find project website.
- Steering Committee direction on approach requested.

Stakeholder Management Plan: CEO Roundtable



- **Create and implement a CEO Roundtable comprised of UW executive/senior management, local business, union and community leaders to meet twice per year.**
 - Roundtable is a dialogue that will bring together Rockland County leaders to discuss perceptions, ideas and concerns regarding the Project in a facilitated, honest forum.
 - Participation by UW executive management is requested.
 - Targeted Stakeholder Groups: Business Network, Governmental Financial Agency, Trade Union, NGO-Operational
 - Targeted Stakeholder Issues: All
 - Target Completion Date: First roundtable by October 2010
 - Estimated Budget: \$7,000 each
- **Potential outcomes that drive the implementation schedule:**
 - Roundtable to be used as sounding board for qualitative measurement purposes; or
 - Both qualitative purposes and fostering members as ambassadors of the project.

Stakeholder Management Plan: Plan Measurement

○ Plan Measurement

- In addition to qualitative measurements (customer advisory panel, CEO Roundtable), create quantitative telephone polling instrument to gauge public perception of the project.
- Qualitative: CEO roundtable, customer advisory panel
- Quantitative: telephone polling
 - Polling allows:
 - Measure chances for success.
 - Pinpoint cutting issues.
 - Identify strengths and weaknesses.
 - Identify and profile key market groups.
 - Provide information to maximize use of resources.
 - Conduct baseline poll by professional polling organization (October 2010)
 - Follow-up poll to gauge results of stakeholder management plan. (March 2011)
 - Estimated Budget: \$18,000 – \$23,000 per poll.
 - **Progress:** Project Team and Sponsor meeting with John McLaughlin on 9/15.
 - Risk: Confidentiality of poll results.

Stakeholder Management Plan: Additional Activities

○ Billboards

- Execute development and installation of public billboards.
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: Safety, reliability, cost
 - Estimated Budget: \$1830 per month per board, 4 locations identified (three in Haverstraw, 1 in Stony Point) plus production cost (estimated \$5,000)

○ Print Ad

- Execute development and placement of new print ad.
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: safety, reliability, cost
 - Estimated Budget: \$20,000

Stakeholder Management Plan: Additional Activities

○ Public Presentations

- Educate groups and members of the public through public presentations.
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: All
 - Estimated Budget: \$0
 - Renew Haverstraw 9/21
 - Nanuet Civic Association 10/7
 - Nanuet Rotary 10/7
 - Blauvelt Lions 10/7
 - Professional Landscape Association of Rockland County 10/13

○ Enlisting scientists/experts

- Develop key testimonials, letters, consulting opportunities, etc. with scientist/experts on radiologicals, Hudson, desalination technology, etc.
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: All
 - Estimated Budget: unknown

Stakeholder Management Plan: Additional Activities

○ Website Upgrade

- Website creative group has recommended an upgrade to website design to enhance appeal.
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: All
 - Estimated Budget: \$15,000
- Search Engine Optimization Study
 - Completed study indicates website users do not use search engines to find project website, direct entry of web address; no SEO required at this time.
 - Budget: incorporated within communications consultant's monthly fees (no additional cost)

STAKEHOLDER MANAGEMENT PLAN – ADDITIONAL DETAIL

Stakeholder Management Plan - Outreach and Education Materials



- Use the message framework as the platform to produce portfolio of materials intended to educate external audiences on the benefits of the Project and address issues of concern.

- Outreach and Education Materials
 - Design and produce eight message boards specific to key stakeholder issues to be displayed in HWSP pilot facility. (September 2010)
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: All
 - Estimated Budget: \$15,000
 - **Progress:** Draft boards completed, one set to populate pilot facility, one set used for public presentations

 - Pilot facility ribbon-cutting/open house for select key stakeholders. (Fall 2010)
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: All
 - Estimated Budget: \$5,000
 - **Progress:** Logistics in place, date subject to pilot operations

Stakeholder Management Plan: Outreach and Education Materials, (cont'd.)

○ Outreach and Education Materials, (cont'd.)

- Conduct pilot facility tours for key stakeholder groups and media. (September 2010-March 2011)
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: All
 - Estimated Budget: \$2,000
 - **Progress:** CAP tours, arranging additional groups

- Develop and implement lesson plans on water supply and desalination technology intended for grades 8-12. (December 2010) Conduct classes at pilot facility.
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: environment, water quality, need, conservation
 - Estimated Budget: \$8,000
 - **Progress:** Educator contacts established, external affairs working with John Dyksen

Stakeholder Management Plan: Outreach and Education Materials, (cont'd.)



○ Outreach and Education Materials, (cont'd.)

- Write and produce two newsletters (October 2010 and February 2011) to be mailed directly to all United Water New York customers.
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: environment, water quality, need, conservation, privatization, foreign ownership, management of Lake Deforest, economic development, energy
 - Estimated Budget: \$60,000
 - **Progress:** Draft articles ready for review week of 10/4

- Write and produce direct mail postcards (November 2010 and March 2011)
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: environment, water quality, need, conservation, economic development, cost
 - Estimated Budget: \$25,000
 - **Progress:** Fact vs. Fiction postcard distributed to all Haverstraw customers 9/23, second postcard concept developed (targeted completion November, countywide distribution)

Stakeholder Management Plan: Outreach and Education Materials, (cont'd.)

○ Outreach and Education Materials, (cont'd.)

- Develop and produce new radio spots (October 2010-March 2011) conveying key economic, need, environment and water quality messages.
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: environment, water quality, need, conservation, economic development
 - Estimated Budget: \$50,000
 - **Progress:** Scripts approved, voice talent selected, initial production completed, editing phase, launch October
- Continue run of previously produced cable television spots that convey key environmental and economic messages (Fall 2010-Spring 2011)
 - Targeted Stakeholder Groups: All
 - Targeted Stakeholder Issues: environment, water quality, need, conservation, privatization, foreign ownership, management of Lake Deforest, economic development
 - Estimated Budget: \$50,000
 - **Progress:** spots running since early September

Stakeholder Management Plan: Outreach and Education Materials, (cont'd.)

○ Outreach and Education Materials, (cont'd.)

- Continue quarterly HWSP customer advisory panel meetings in order to gauge public sentiment and/or concern.
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: All
 - Estimated Budget: \$10,000
 - **Progress:** UWNY CAP held at pilot on 9/13, HWSP CAP 10/12

- Update project website with DEIS and revised messages.
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: All
 - Estimated Budget: **\$10,000**
 - **Progress:** revised DEIS page ready to be launched, messages to be updated in October

Stakeholder Management Plan: Outreach and Education Materials, (cont'd.)

○ Outreach and Education Materials, (cont'd.)

- Continue email newsletter blast to opt-in list to convey key messages. (Bi-monthly)
 - Targeted Stakeholder Groups: Customer Groups
 - Targeted Stakeholder Issues: environment, water quality, need, conservation, economic development, cost, management of Lake Deforest
 - Estimated Budget: \$10,000
 - **Progress:** article on Lake Deforest management in draft form, launch October

Stakeholder Management Plan: Government Affairs



○ Local Government Affairs

- Offer invitations/requests to make formal presentations to all County, Town and Village legislative bodies in the County of Rockland.
- Targeted Stakeholder Groups: Local Government
- Target Completion Date: November 2010 (initial invitation) and January 2011 (follow-up invitation)
 - **Progress:** external affairs to make initial invitations, implementing plan October

○ State and National Government Affairs

- Internal discussions continue.
 - **Progress:** One candidate identified by project team, additional candidates to be provided by external affairs

○ NY PAC

- Increase funding efforts.
- Strategically use funds.
 - **Progress:** employee meeting held 9/23, vendor event TBD

Stakeholder Management Plan: CEO Roundtable



- **Create and implement a CEO Roundtable comprised of UW executive/senior management, local business, union and community leaders to meet twice per year.**
 - Roundtable is a dialogue that will bring together Rockland County leaders to discuss perceptions, ideas and concerns regarding the Project in a facilitated, honest forum.
 - Participation by UW executive management is requested.
 - Targeted Stakeholder Groups: Business Network, Governmental Financial Agency, Trade Union, NGO-Operational
 - Targeted Stakeholder Issues: All
 - Target Completion Date: First roundtable by October 2010
 - Estimated Budget: \$7,000 each
 - Progress: timing and concept to be discussed- roundtable to be used as sounding board for qualitative measurement purposes vs. both qualitative purposes and fostering members as ambassadors of the project

Stakeholder Management Plan: Media Management

- **Develop press releases, engage media in discussions and produce op-eds and letters to the editor conveying key messages. Continue to solicit key partners to write on our behalf.**
 - Write and have placed at least four op-ed pieces and/or letters to the editor
 - Have key partner(s) write at least three op-eds and/or letters to the editor
 - Targeted Stakeholder Groups: All
 - Target Completion Date: April 1, 2011
 - **Progress:** Press release re: US Gypsum agreement 9/15, 1st op-ed ready for review by 10/15

Stakeholder Management Plan: Specialized Stakeholder Group Management

- In addition to a comprehensive outreach and education campaign that will help to influence key stakeholders and public opinion, direct management of specialized stakeholder groups is necessary.
 - Utilize Chair of Rockland County Environmental Committee, Connie Coker, to facilitate meeting with key NGO- Advocacy/special interest group leaders and/or extend direct invitations to meet at and tour pilot facility (August/September 2010)
 - Progress: NGO Advocacy groups to be invited to pilot once operations commence
 - Respond to all special interest group member comments in media by writing op-eds or letters to the editor. (Ongoing)
 - Invite other specialized stakeholder groups for presentation at and tour of pilot facility (fire chiefs, university/research institutes, landscapers, builders, real estate)
 - Progress: subject to pilot operations
 - Estimated budget: \$5,000

Stakeholder Management Plan: Internal Awareness and Executive Participation

○ Internal Awareness

- Build internal awareness of the project through internal communications plan.
- Internal e-mail newsletter and postcards to UWNY employees and other key employees (monthly and as needed).
- Distribute external and education materials to internal audiences.
- Targeted Stakeholder Issues: All
- Estimated Budget: \$ 5,000
- Progress: Plan to be developed

○ UW Executive/Senior Management Participation

- The presence of high-level UW personnel sends a strong message that the project is of critical importance to the company. Executive and senior managers are requested to attend:
- Periodic meetings with Haverstraw Supervisor Howard Phillips.
- Significant meetings with regulators and other key decision makers. (As needed)
- CEO Roundtable. (October 2010)
- **Progress:** Key executives attended DEC meeting on 9/30, dinner meeting to be established with Sup. Phillips, CEO Roundtable TBD



Haverstraw Water Supply Project

Steering Committee Meeting
October 6, 2010

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
Work Product – Privileged & Confidential

Haverstraw Water Supply Project

CEO Briefing
November 5, 2010

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
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PROJECT STATUS

Project Status



○ Pilot Study

- Construction Status:
 - Intake operational.
 - Pilot Facility start-up underway.
- Operations Start / Data Collection: November 29, 2010.
- Dedication: November 23, 2010.
- Data available to support June 2011 Decision Point.

Project Status, (cont'd.)



○ Draft Environmental Impact Statement

- Environmental regulators are requiring exceptional detail & comprehensive review
- In spirit to help decision making, but prodded by opponents
- adding to cost and risk

- 10 of 23 chapters submitted to date. Submission of remaining chapters postponed until after Election Day.
- Next steps:
 - NYSDEC DEIS review against Scope
 - “Notice of incomplete application” for areas that do not fully meet Scope. Expect 3 – 4 iterations of DEIS before “complete” for public review, approx. July / August 2011.
- Risks:
 - Availability of data from the Pilot Study postpone “completion” of the DEIS.
 - DEIS represents Project with the most significant environmental impact and highest costs to mitigate the majority of these risks.

Project Status, (cont'd.)



○ Communications/Outreach

- Opposition groups pursuing agenda through grass-roots efforts by meeting with neighborhood / civic associations, Town/Village Boards, etc...
- Stakeholder Management Plan key point – gain support, identify counters to opponents and highlight benefits
- Communications / Outreach efforts:
 - Direct mail postcard in Town of Haverstraw effective in stopping door-to-door petition.
 - Pilot facility will act as showcase for project - ribbon cutting/dedication, open houses, group presentations, roundtable, CAP, etc....
 - Preparing array of external communications highlighting project benefits, e.g., direct mail, radio spots, newsletter, billboards, message boards for public presentations.
 - Utilizing free media to dispel opposition arguments, e.g., op-ed on Lake Deforest management.

○ Government Affairs

- New governor takes office January 1, 2011.
- Government affairs/outreach plan: pending.

Project Costs



○ **The Project budget presented through 2011 is as follows:**

- Costs Incurred: \$ 14,968
- 2010: \$ 9,500
- 2011: \$ 5,896
- Total: \$ 30,364

○ **The CEA Change Request that was submitted is for the above Project costs through 2011 based on the direction from the Board.**

	Thru 2009	2010	2011	2012	2013	2014	2015	2016	Total
Project Cost (5 MGD) – July 2010	14,968	9,500	5,896	9,658	10,993	36,015	34,176	1,984	123,190
Project Cost (5 MGD) – Oct. 2010 (CEA Change)	14,968	8,000	7,396	9,658	10,993	36,015	34,176	1,984	123,190

Project Schedule



	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Pilot Construction																								
Baseline																								
Revised																								
Pilot Operations																								
Baseline																								
Revised																								
DEIS Revision																								
Baseline																								
Revised																								
DEIS Review/Public Comment																								
Baseline																								
Revised																								
Stakeholder Management																								
Baseline																								
Revised																								

Haverstraw Water Supply Project

CEO Briefing
November 5, 2010

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
Work Product – Privileged & Confidential

Haverstraw Water Supply Project

Steering Committee Meeting
February 17, 2011

www.unitedwater.com/hwsp



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Agenda



○ Project Status

- Project Cost and Schedule
- Properties
- Pilot Study
- DEIS Status

○ Government Outreach

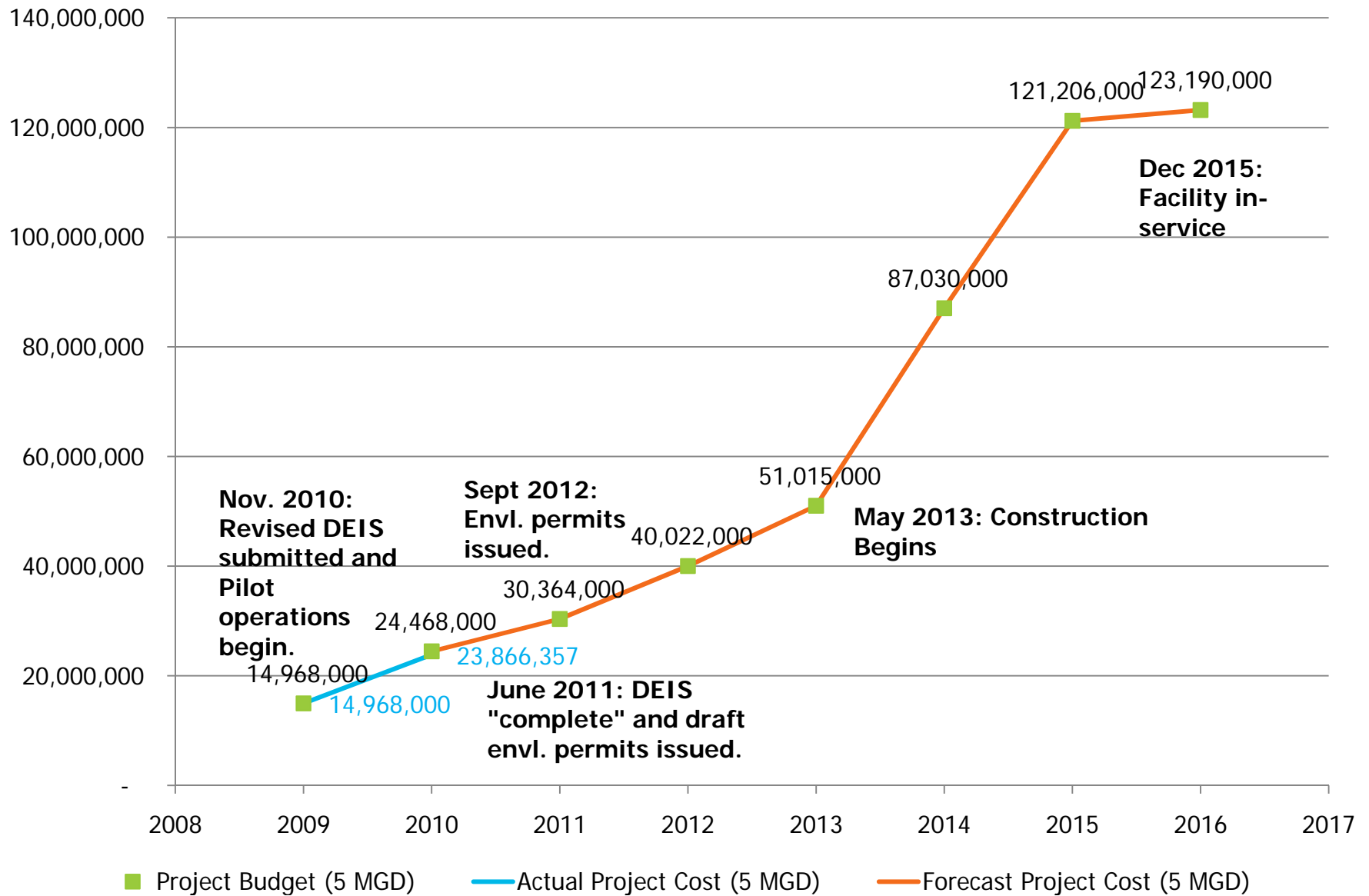
○ Communications and Community Outreach

○ Meeting Objectives

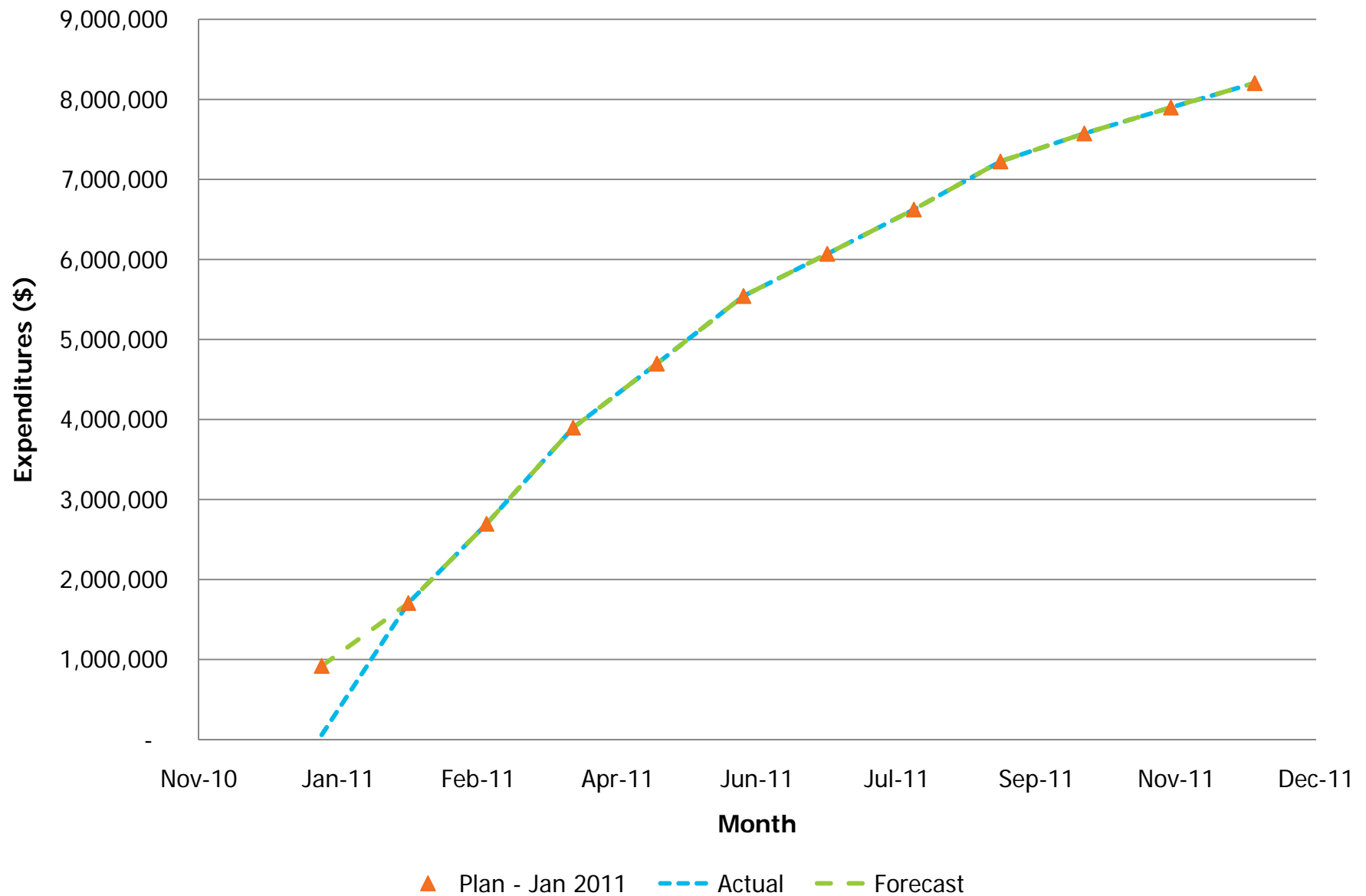
- Brief/obtain guidance from Steering Committee on Project status.
- Brief/obtain guidance from Steering Committee on Government Outreach process.
- Brief/obtain guidance from Steering Committee on Communications and Community Outreach process.

PROJECT COST & SCHEDULE

Project Costs



Project Costs, (cont'd.)



Project Schedule



	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Pilot Construction																								
Baseline																								
Current Status																								
Pilot Operations																								
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Current Status																								
DEIS Revision																								
Baseline																								
Current Status																								
DEIS Review/Public Comment																								
Baseline																								
Current Status																								
Stakeholder Management																								
Baseline																								
Current Status																								

Internal Milestones

Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2

- EIS deemed complete and draft permits issued – 6/30/2011 *
 - Adjudicatory hearing determination – 8/30/2011
 - Evaluate stakeholder landscape – 8/30/2011
 - 50% Design – 9/30/2011
 - Decision Point – 10/15/2011
- * EIS dates likely to be impacted by NYSDEC 12/30/2010 NOIA.

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013

PROJECT STATUS

Properties



○ Pilot Study

- Intake: U.S. Gypsum Property (Lease)
- Raw Water Pipeline: Partially through Haverstraw Joint Regional STP (License)
- Pilot Facility: DSB Realty Property (Lease)

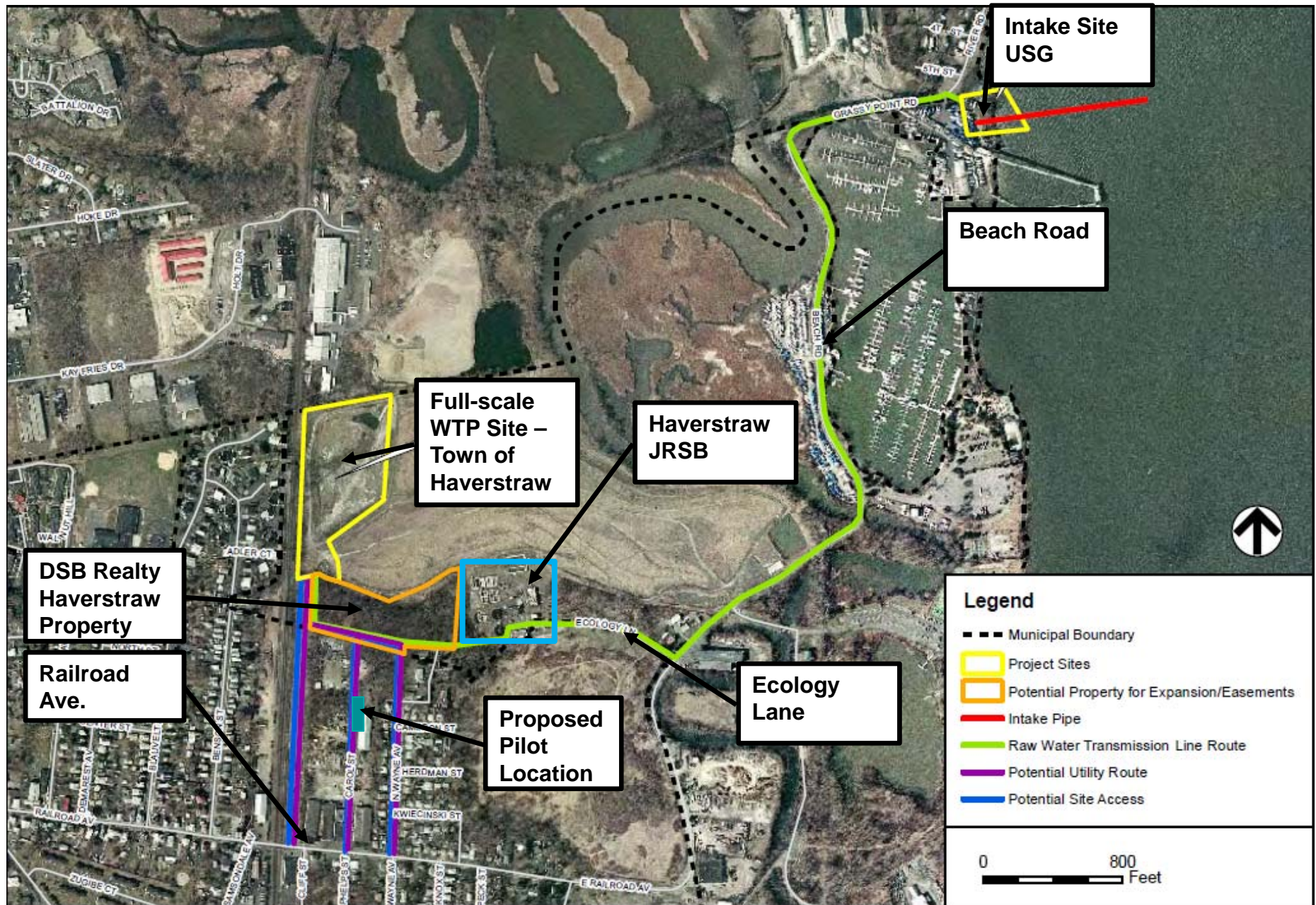
○ Full-Scale

- Intake: U.S. Gypsum Property (Option)
- Raw Water Pipeline & Utilities: Partially through Haverstraw Joint Regional STP (Option) and DSB Realty Property
- Water Treatment Plant: Town of Haverstraw Property, adjacent to Haverstraw Landfill (Option)

○ Status

- U. S. Gypsum: Pilot and Full-scale option and lease agreements executed.
- Town of Haverstraw: Draft agreement sent to Town, awaiting comments from Town.
- JRSB: Pilot easement agreement executed. Finalizing draft full-scale agreement, awaiting finalization of brine discharge location by NYSDEC and EPA.
- DSB Realty: Pilot and Full-scale option and lease agreements executed.

Properties, (cont'd.)



Pilot Study Status



- **Water quality data collected at intake location with buoy from 2008 – 2010 (buoy removed when river freezes). Year long sampling program conducted at multiple locations and depths from 2007 – 2008.**
- **Data collection for DEIS underway since December 2010, through February 2011. Total of 3 months of data will be collected, i.e., December 2010 – February 2011.**
 - DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- **Pilot Operations to date**
 - Treated approximately 5 million gallons of river water.
 - Approximately 1,500 laboratory samples analyzed.
 - Approximately 70 days of river water operations.
- **Preliminary findings**
 - Baseline Process, i.e., largest scale process with greatest environmental impacts, performing as expected.
 - Optimization of Baseline Process to occur after DEIS data is collected.

Pilot Study Status, (cont'd.)



Parameters	Quarter	Month	Week	Other
VOCs	X	X		
SVOCs	X	X		
Pesticides	X	X		
PCBs	X	X		
Metals		Same		
Radionuclides	X	X		
EDCs/PPCPs	X	X		
Pathogens	X			2x/ month
Process Performance		Same	Same	
Whole Effluent Toxicity				Same

Standard sampling protocol

Accelerated sampling to provide data for the
DEIS

DEIS Status



- September 26, 2008 – Draft Environmental Impact Statement (“DEIS”) and environmental permit applications submitted.
- January 26, 2009 – NYSDEC notifies all involved agencies of its intention to assume lead agency status.
- April 2, 2009 – NYSDEC declare itself lead agency.
- May 7, 2009 – NYSDEC conducts public scoping session.
- July 1, 2009 – NYSDEC issues DEIS scope.
- July 2009 – September 2010: DEIS revision to address July 2009 scope.
- November 8 2010 – Revised DEIS submitted to NYSDEC.

DEIS Status, (cont'd.)



- **November 2010 – December 2010: NYSDEC review DEIS against the scope.**
- **December 30, 2010: NYSDEC issues Notice of Incomplete Application (i.e., comments) on DEIS.**
- **January 5, 2011: UWNY requests meeting with NYSDEC to review comments. Meeting has yet to be arranged.**
- **January 26, 2011: NYSDEC, NYSDOH, RCDOH, and UWNY meet to discuss the role of pilot data in the DEIS. UWNY reiterates its request for a meeting to review the NYSDEC's December 30th comments.**

DEIS Status, (cont'd.)



○ **NYSDEC's December 30, 2010 comments Notice of Incomplete Application contained:**

- 136 total comments.
 - Approx. 61 that may be addressed with additional text or text revisions.
 - Approx. 32 requiring clarification from the NYSDEC.
 - Approx. 23 that are out of scope or expanding the scope.
- Strong NYSDOS fingerprint on comments ranging from the growth inducing aspects of the project, to the location of the intake (i.e., in Haverstraw Bay), to the project's energy demand.
 - NYSDOS through its Coastal Zone Consistency Certification has significant discretionary approval over projects that are within the coastal zone or impact significant wildlife habitats.

○ **NYSDEC requirements beyond the scope of the DEIS.**

- For example, duration of pilot testing
 - NYSDEC believes that 12 months of pilot data is necessary for the DEIS to identify impacts including seasonality of water quality, energy consumption, and entrainment and impingement.
 - UWNYP proposed a total of 3 months to supplement data included in the DEIS. The pilot will continue to collect data for an additional 9 months (that will be shared with the NYSDEC).

○ What is the basis for determining the adequacy of a draft EIS?

- "...The lead agency should ensure that all relevant information has been presented and analyzed, but should neither expect nor require a "perfect" or exhaustive document. The degree of detail should reflect the complexity of the action and the magnitude and importance of likely impacts." (Emphasis supplied.)
- "...Since one of the major purposes of a draft EIS is to give the public an opportunity to comment on the environmental issues raised, as well as the possible alternatives and mitigation offered to address those issues, settling on a resolution of one or more issues prior to public review would actually be counter to the intent of SEQR." (Emphasis supplied.)

○ Must differences between the project sponsor's and lead agency's experts regarding interpretation of a technical issue be resolved prior to the lead agency determining to accept a draft EIS as complete?

- "No. It is not necessary to resolve these types of disputes before accepting the draft EIS as complete. In cases where there are valid differences in the interpretation of a technical issue, the lead agency should include both interpretations in the draft EIS. Providing both positions allows a reviewer to reach an independent determination regarding the impact." (Emphasis supplied.)

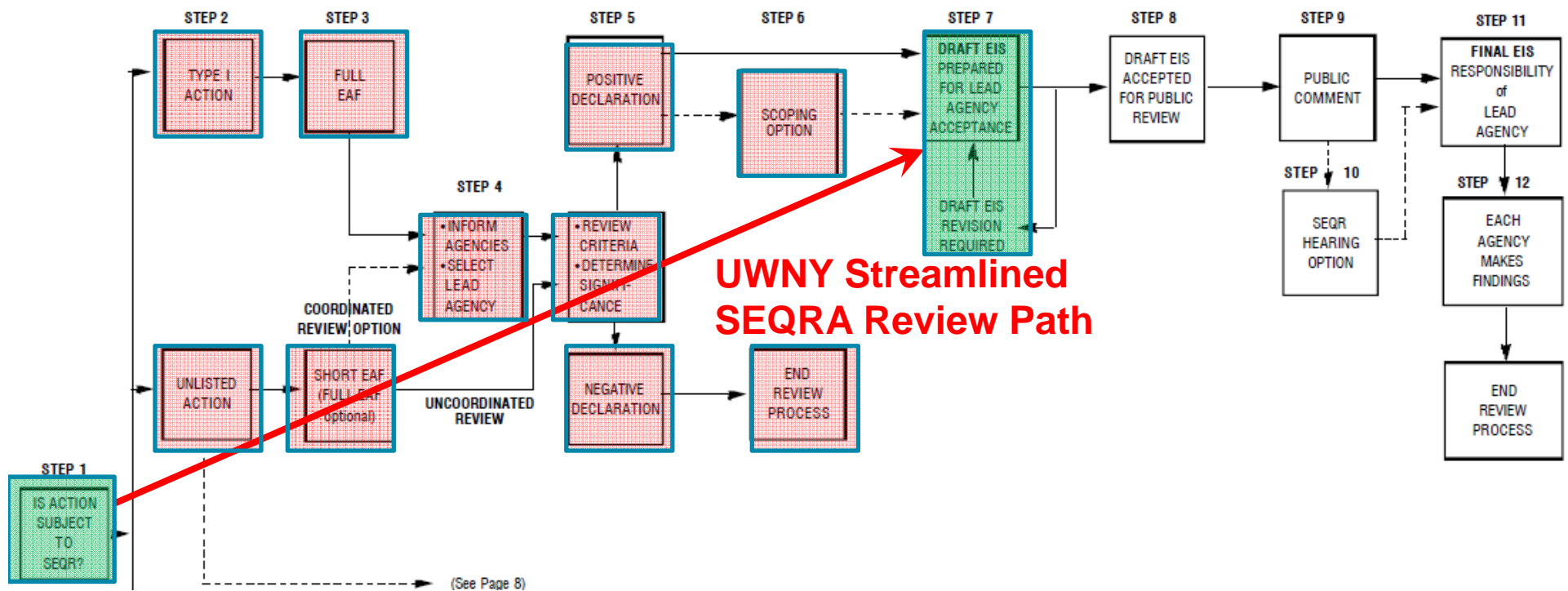
NYSDEC SEQR Handbook, (cont'd)



○ What may a lead agency do if a project sponsor refuses to make requested changes?

- “If a lead agency's request for the inclusion of necessary information is ignored or refused, the agency may continue to reject the resubmitted draft EIS.”
- “...When there is this kind of fundamental disagreement between the lead agency and the preparer of the draft EIS, the lead agency may explain the disagreement in its Notice of Completion and invite public comment related to the disagreement, in addition to comments on the draft EIS itself. Additionally, the lead agency should repeat its criticisms of the draft EIS as written comments during the public review and comment period. This process will allow the disagreement concerning EIS content to be resolved via the lead agency's responses to comments in the final EIS.” (Emphasis supplied.)

DEIS Status, (cont'd.)



DEIS Next Steps and Risks



○ Next steps:

- Meet with NYSDEC to discuss NOIA comments and continue discussion regarding pilot data.

Direction requested: To continue with Accelerated Pilot sampling until NYSDEC determination on duration of Pilot data required for DEIS or reduce to Standard sampling beginning in March.

- Establish regular meetings with NYSDEC.
- Expect 3 – 4 iterations of DEIS before “complete” for public review, approx. June 2011.
- Engage Governor’s office, senior political appointees and institutional civil servants at key state agencies.

○ Risks:

- Availability of data from the Pilot Study postpone “completion” of the DEIS.
- DEIS represents Project with the most significant environmental impact and highest costs to mitigate the majority of these risks.

GOVERNMENT OUTREACH

Government Outreach



○ Goals and objectives

- To frequently gauge decision makers' perceptions;
- To receive ongoing feedback from decision makers; and
- To build continuous awareness and support.

○ Project needs

- Relationships with current elected officials and political appointees
- Relationships with institutional civil servants
- Experience with public utilities and project development
- Strong Albany roots
- Continuous dialogue with Project Team

○ Identify firms to meet need

- Brown McMahon & Weintraub – current government affairs firm
- Tonio Burgos & Associates – former government affairs firm
- Terri Crowley of Hinman Straub
- Other

○ Establish process to select firm

COMMUNICATIONS AND COMMUNITY RELATIONS

Communications and Community Relations



○ Goals

- To deliver communication strategies that increase stakeholder awareness and confidence in United Water and the Haverstraw Water Supply Project and to facilitate the approval and successful implementation of the project.

○ Key Issues

- Water Quality
- Cost
- Environment
- Need
- Comparison to Alternatives
- Energy
- Management of Lake Deforest
- Economic Development
- BU Operations
- Privatization/Foreign Ownership
- Joint Proposal Milestones

Communications and Community Relations, (cont'd.)



○ Pilot Facility

- The pilot facility as the public showcase for the project.
- Presentation of water quality report based on pilot data.
- Engage stakeholders by conducting public open houses.
 - Conducted on February 16th.
 - Target: 1 open house per month.
- Conduct organizational or group tours (civic organizations, special interest, fire personnel, etc.).
 - Meeting at Pilot with Rockland Coalition for Sustainable Water on February 9th.
 - Target: 1 group meeting per month.
- Conduct tours for United Water New York employees.
 - Roundtable for employees who are Rockland residents held on January 7th.
 - Ongoing employee tours.
- Video
 - Tool for school age children and general public.
 - Evolved to a more detailed educational video beyond just the pilot.
 - Draft script provides historical context, alternatives, cost, water quality, treatment, and benefits.
 - Approximate cost: \$12,000 – \$15,000 excluding licensing fees for animations.

Communications and Community Relations, (cont'd.)



○ Stakeholder Engagement

- Business Leader Roundtable: Postponed.
 - Expanded to include Community Leaders.
 - Postponed from January 24th. Original facilitator suffered serious medical condition.
 - Challenges securing an appropriate facilitator.
 - Alternate facilitator has been identified.
 - Target date: April 2011

- Stakeholder Dialogue: Postponed.
 - Postponed from February 28th. Original facilitator suffered serious medical condition.
 - Challenges securing an appropriate facilitator.
 - Alternate facilitator has not been identified.
 - Target date: Pending selection of facilitator.

- Customer advisory panels: Ongoing.
 - NY CAP meeting: March 21st.
 - HWSP CAP meeting: March 22nd.



Communications and Community Relations, (cont'd.)

○ Customer Communications

- Launch further customer communications using present knowledge and in response to public opinion survey results, dialogues, and customer advisory panels.

○ Outreach and Education/Local External Affairs

- School Program: Lecture series initiated in North Rockland. Wider deployment pending initial roll-out review.
 - February 17th: tour for North Rockland Technology Teachers Association.
 - Tours for school age children originally planned to Present a video and use viewing windows and models without taking children into process area.
 - Safety review of Pilot underway to identify improvements to allow tours for children.
- Municipal board meetings: Ongoing. Extend in-person, on-the-record invitations to present on project to municipal legislative and executive bodies in Rockland.
- Greater coordination with Project strategy necessary.

Communications and Community Relations, (cont'd.)

○ Measurement - Public Opinion Survey

- Goal: Assess public opinion, perceptions and preferences.
- Approach: Establish a baseline using approximately 60 question survey lasting approximately 20 minutes. In contrast to customer satisfaction surveys, the public opinion survey should disguise who commissioned the survey.
- Results of survey to be used to focus and shape messaging, customer communications, etc.
- Status: Draft survey reviewed by Team, M. Pointing and R. Henning. Revisions being made to survey.

Direction requested: Steering Committee review of survey.

Haverstraw Water Supply Project

Steering Committee Meeting
February 17, 2011

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
Work Product – Privileged & Confidential

Haverstraw Water Supply Project

Steering Committee Meeting
March 3, 2011

www.unitedwater.com/hwsp



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Agenda



○ Project Status

- Project Cost and Schedule
- Project Controls
- Properties
- Pilot Study
- DEIS Status

○ Government Outreach

○ Communications and Community Outreach

○ Risks/Opportunities

○ Meeting Objectives

- Brief/obtain guidance from Steering Committee on Project status.
- Brief/obtain guidance from Steering Committee on Government Outreach process.
- Brief/obtain guidance from Steering Committee on Communications and Community Outreach process.



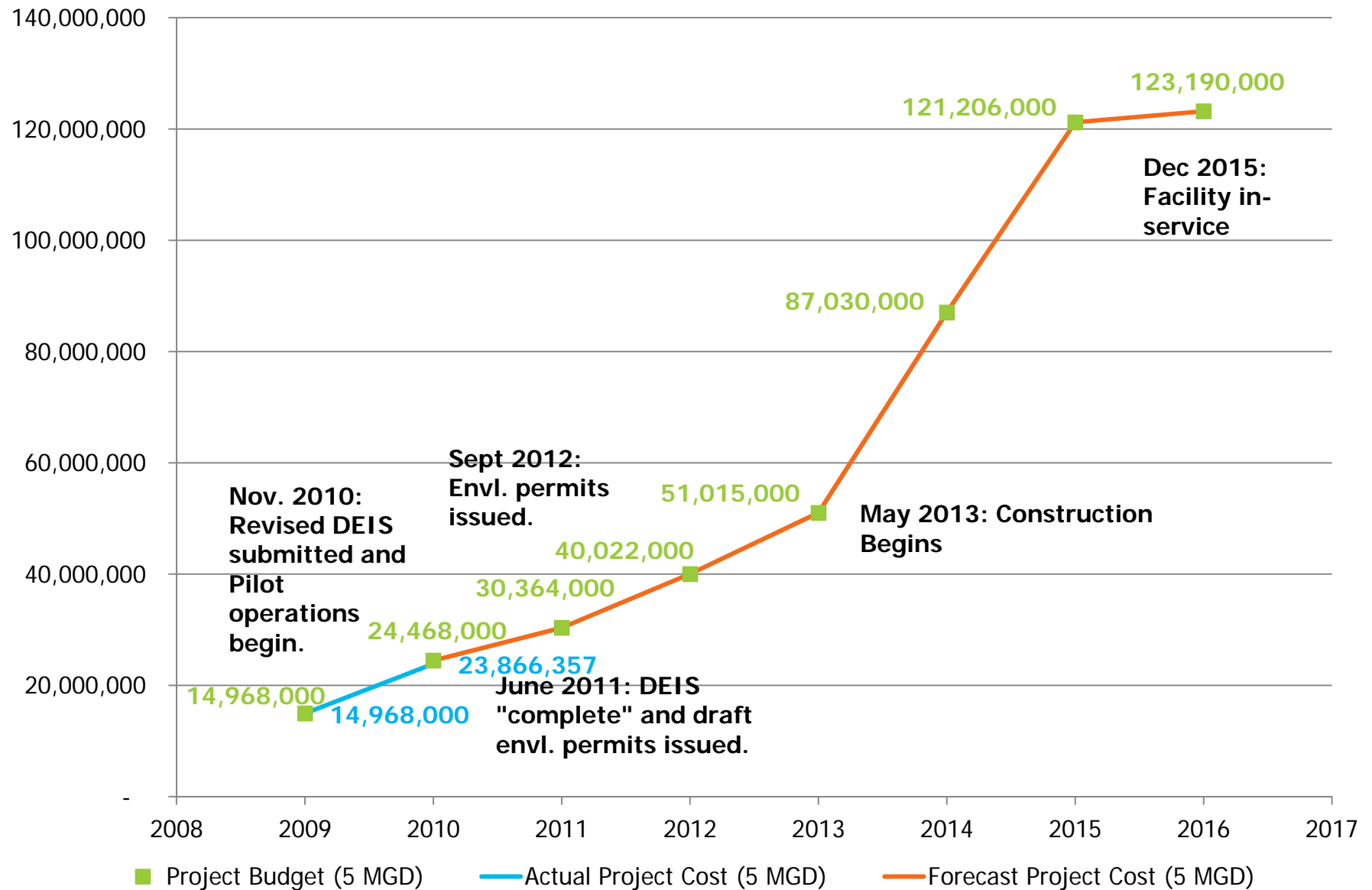
Haverstraw Water Supply Project

PROJECT STATUS

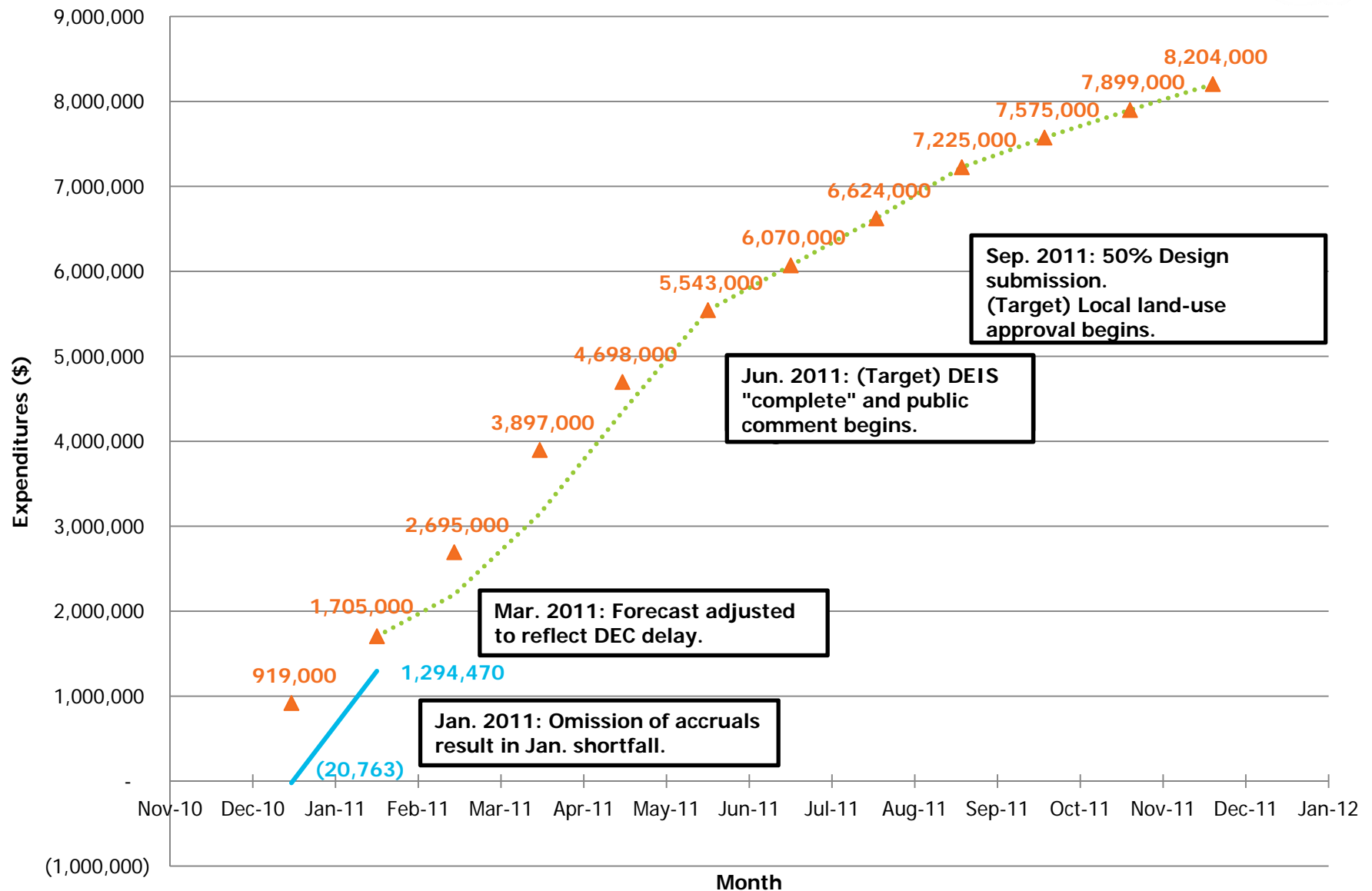
Haverstraw Water Supply Project

PROJECT COST & SCHEDULE

Project Costs



Project Costs, (cont'd.)



Project Schedule



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Submit Project Description	X X									
Project Design										
Submit Conceptual Design		X X								
Complete 50% Design				X X						
Prepare DEIS and Envl. Permits										
Submit DEIS and Envl. Permits			X X							
DEIS Agency Review										
DEIS Public Review										
Address Public Comments (FEIS)										
FEIS Issued										
Draft Envl. Permits Issued										
Obtain Envl. Permits				X						
Pilot Study										
Complete Pilot Studies										
Construction										
Begin Construction										
In Service										

Baseline
Current Status
Milestone



Project Schedule, (cont'd.)



	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Pilot Construction																								
Baseline																								
Current Status																								
Pilot Operations																								
Baseline																								
Current Status																								
DEIS Revision																								
Baseline																								
Current Status																								
DEIS Review/Public Comment																								
Baseline																								
Current Status																								
Stakeholder Management																								
Baseline																								
Current Status																								

Internal Milestones

Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2

- EIS deemed complete and draft permits issued – 6/30/2011 *
 - Adjudicatory hearing determination – 8/30/2011
 - Evaluate stakeholder landscape – 8/30/2011
 - 50% Design – 9/30/2011
 - Decision Point – 10/15/2011
- * EIS dates likely to be impacted by NYSDEC 12/30/2010 NOIA.

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013

Haverstraw Water Supply Project

PROJECT GOVERNANCE / CONTROLS

Project Governance

Project Governance as identified in Project Lookback:

- **Steering Committee**

- R. Iacullo, D. Ciemniecki, R. Gerber, J. Dyksen, and M. Pointing

- **Business Owner**

- M. Pointing

- **Project Sponsors**

- J. Dyksen and M. Pointing

- **Project Manager**

- S. Master

- **Direction requested**

- Review Project Sponsor designation/role pursuant to M. Pointing's request.
- Potentially add Executive Project Sponsor.

Project Controls



	Steering Committee	Project Owner/ Sponsors	UW Team	Project Team	Disciplines
Frequency	<ul style="list-style-type: none"> •Bi-Monthly Meeting •Bi-Weekly Snapshot Report 	<ul style="list-style-type: none"> •Bi-Weekly meeting •Bi-Weekly Snapshot Report 	<ul style="list-style-type: none"> •Weekly Call 	<ul style="list-style-type: none"> •Monthly Meeting 	<ul style="list-style-type: none"> •Weekly Call
Controls	<ul style="list-style-type: none"> •Project progress update •Stakeholder update •Risk update/identification •Cost and Schedule update •Go / No-go Decisions 	<ul style="list-style-type: none"> •Project progress update •Stakeholder update •Risk update/identification •Cost and Schedule update 	<ul style="list-style-type: none"> •Project progress update •Stakeholder update •Risk update/identification •Cost and Schedule update 	<ul style="list-style-type: none"> •Project progress update •Stakeholder update •Risk update/identification •Cost and Schedule update 	<ul style="list-style-type: none"> •Project progress update •Stakeholder update •Risk update/identification •Cost and Schedule update



Haverstraw Water Supply Project

PROPERTIES

Properties



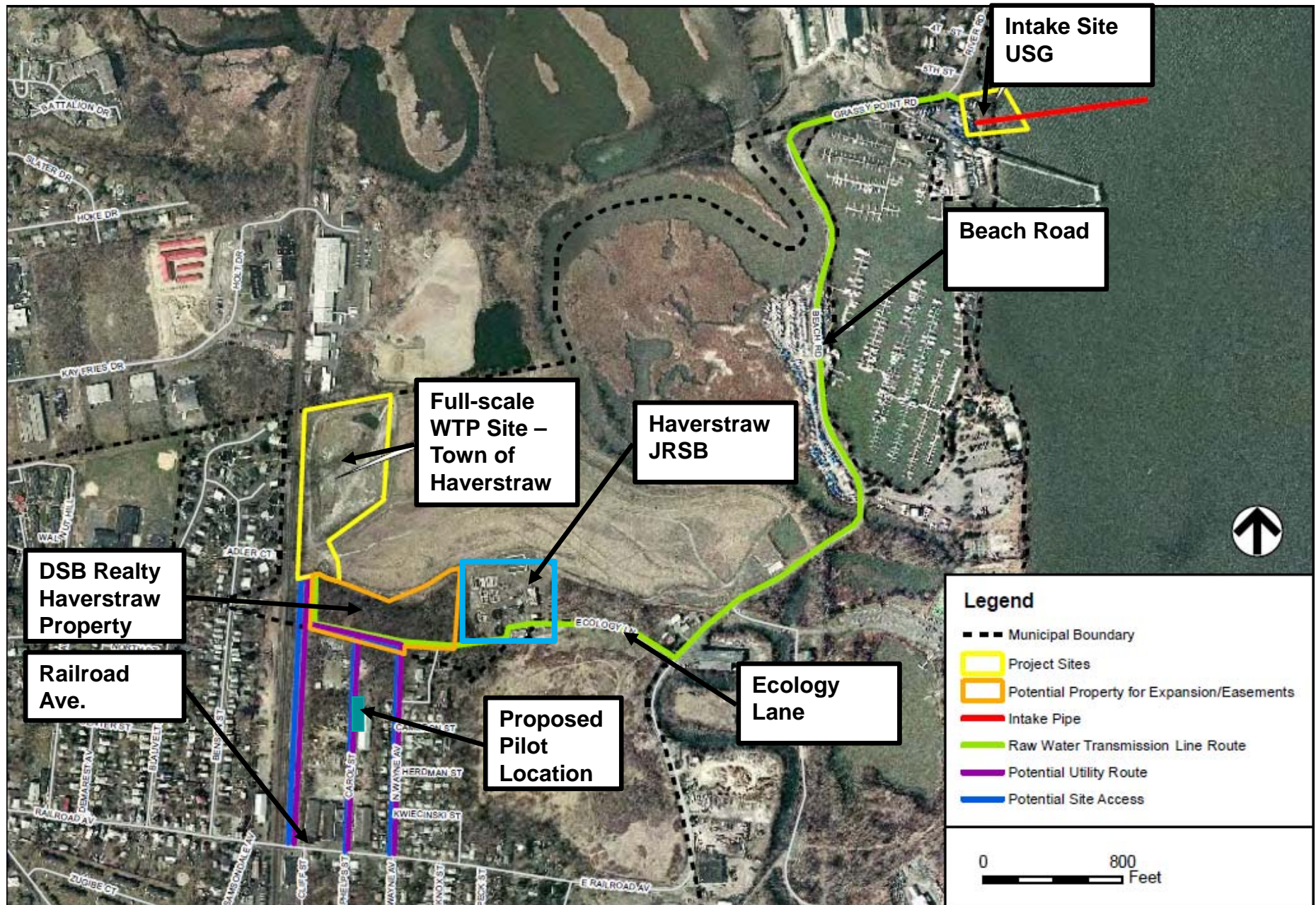
○ Pilot Study

- Intake: U.S. Gypsum Property (Lease)
- Raw Water Pipeline: Partially through Haverstraw Joint Regional STP (License)
- Pilot Facility: DSB Realty Property (Lease)

○ Full-Scale

- Intake: U.S. Gypsum Property (Option)
- Raw Water Pipeline & Utilities: Partially through Haverstraw Joint Regional STP (Option) and DSB Realty Property
- Water Treatment Plant: Town of Haverstraw Property, adjacent to Haverstraw Landfill (Option)

Properties, (cont'd.)



Property Status



	USG	JRSB – Pipelines	DSB Realty – WTP Site	Haverstraw – WTP Site	JRSB – Waste Disp.
Pilot					
Lease/ Easement	Lease Executed	Temporary Easement	Lease Executed	N/A	Permit Issued
Term	Annual	Annual			
Annual Amount	\$70K + fees and taxes	\$12K	\$68.25K	N/A	N/A
Full-Scale					
Option Agreement	Executed	Pending	Executed	Pending	Pending
Option Term	Annual		2009 - 2011		
Option Amount	\$50K		\$200K		
Purchase Amount	Fair market value		\$1,500K Jan 2012.		



Haverstraw Water Supply Project

PILOT STUDY

Pilot Study Status



- **Water quality data collected at intake location with buoy from 2008 – 2010 (buoy removed when river freezes). Year long sampling program conducted at multiple locations and depths from 2007 – 2008.**
- **Data collection for DEIS underway since December 2010, through February 2011. Total of 3 months of data will be collected, i.e., December 2010 – February 2011.**
 - DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- **Pilot Operations to date**
 - Treated approximately 5 million gallons of river water.
 - Approximately 1,500 laboratory samples analyzed.
 - Approximately 70 days of river water operations.
- **Preliminary findings**
 - Baseline Process, i.e., largest scale process with greatest environmental impacts, performing as expected.
 - Optimization of Baseline Process to occur after DEIS data is collected.

Pilot Study Status, (cont'd.)



○ Haverstraw Joint Regional Sewer Board (“JRSB”) Industrial Discharge Permit (“IDP”)

- Hudson River boron levels: 0.04 – 2.19 ppm.
- JRSB IDP boron limit: 0.23 ppm.
- Pilot does not generate or treat boron, i.e., the amount of boron entering from the river is the same as what is sent to the JRSB.
 - Dec 2010 and Jan 2011 discharges to JRSB exceeded the IDP limit for boron.
 - JRSB Executive Director notified pursuant to IDP. Executive Director indicated that other industrial dischargers exceed boron limit including Haverstraw Landfill and Bowline Power Plant.
- Further review of boron fate/transport in Pilot underway.

○ University Collaboration Opportunities

- Identified several academic institutions:
 - Columbia University/Lamont Doherty Earth Observatory
 - Manhattan College
 - Stevens Institute
 - Rutgers University
- Rutgers expressed interest in 2 areas:
 - Process design review/efficacy
 - Granular activated carbon evaluation

Pilot Study Status, (cont'd.)

- **January 26, 2011: NYSDEC indicates that selection of a wedgewire screen with a slot opening of ½ mm for the full-scale intake will eliminate the need for location specific entrainment/impingement sampling with a 2 mm wedgewire screen during the Pilot Study.**
 - UW expressed 2 concerns regarding the ½ mm wedgewire screens:
 1. The ½ mm wedgewire screens would disturb a larger area of the river bottom, which the NYSDOS may not find approvable.
 2. Operational issues with the ½ mm wedgewire screens.
 - NYSDEC indicated that they would discuss the use of ½ mm wedge wire screens with NYSDOS
 - UW agreed to review the NYSDEC's proposal.
- **Use of ½ mm wedge wire screens at the Pilot:**
 - Objective: evaluate the operational impact of ½ mm wedgewire screens in the Hudson River.
 - Submission of ACOE, NYSDEC, and NYSDOS permit applications.
 - Permitting cost: approx. \$20,000 - \$30,000
 - Material cost: approx. \$6,000 - \$7,500
 - Installation cost: approx. \$20,000 - \$25,000
- **Risk:**
 - NYSDEC could require aquatic testing of ½ mm wedgewire screens.

Pilot Study, (cont'd.)



○ Direction requested:

- Pursue academic institution collaboration opportunity.
- Install ½ mm wedgewire screens at Pilot to evaluate operational considerations.

Haverstraw Water Supply Project

DRAFT ENVIRONMENTAL IMPACT STATEMENT STATUS

DEIS Status



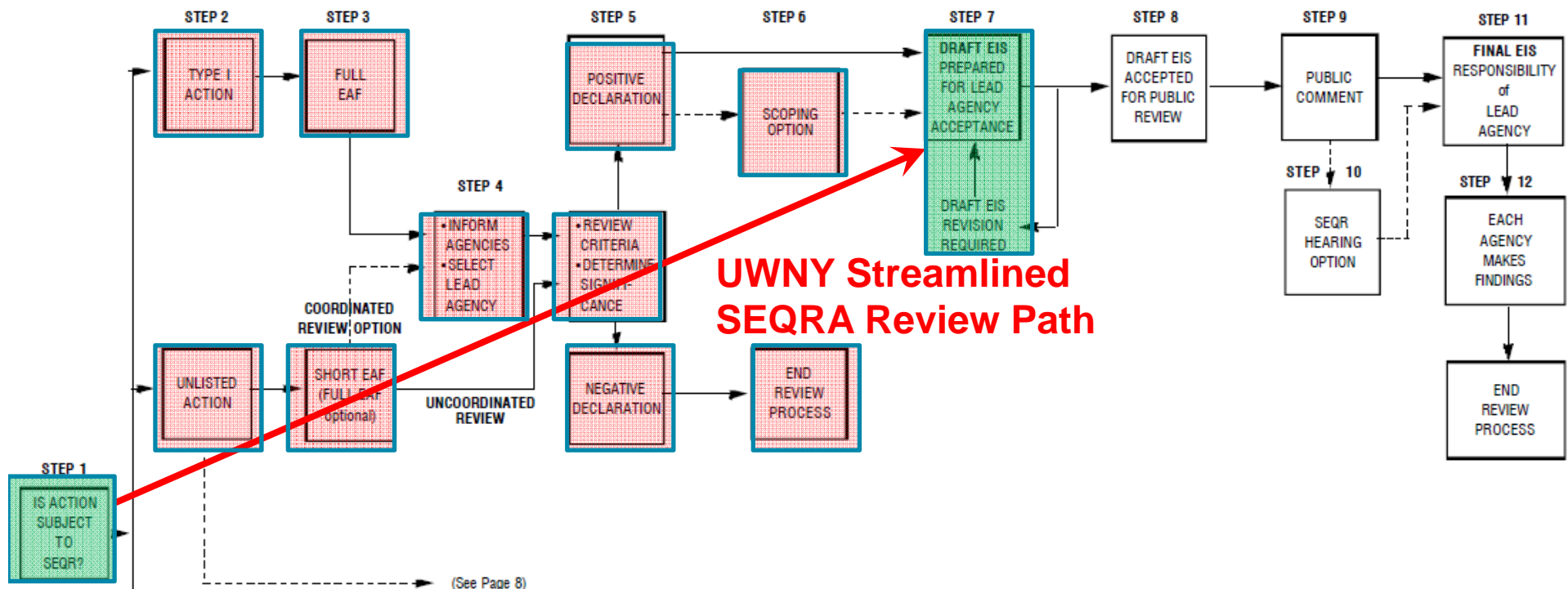
- **September 26, 2008 – Draft Environmental Impact Statement (“DEIS”) and environmental permit applications submitted.**
- **January 26, 2009 – NYSDEC notifies all involved agencies of its intention to assume lead agency status.**
- **April 2, 2009 – NYSDEC declare itself lead agency.**
- **May 7, 2009 – NYSDEC conducts public scoping session.**
- **July 1, 2009 – NYSDEC issues DEIS scope.**
- **July 2009 – September 2010: DEIS revision to address July 2009 scope.**
- **November 8, 2010 – Revised DEIS submitted to NYSDEC.**

DEIS Status, (cont'd.)



- **November 2010 – December 2010: NYSDEC review DEIS against the scope.**
- **December 30, 2010: NYSDEC issues Notice of Incomplete Application (i.e., comments) on DEIS.**
- **January 5, 2011: UWNYP requests meeting with NYSDEC to review comments. Meeting has yet to be arranged.**
- **January 26, 2011: NYSDEC, NYSDOH, RCDOH, and UWNYP meet to discuss the role of pilot data in the DEIS. UWNYP reiterates its request for a meeting to review the NYSDEC's December 30th comments.**

DEIS Status, (cont'd.)



DEIS Status, (cont'd.)



○ **NYSDEC's December 30, 2010 comments Notice of Incomplete Application contained:**

- 136 total comments.
 - Approx. 61 that may be addressed with additional text or text revisions.
 - Approx. 32 requiring clarification from the NYSDEC.
 - Approx. 23 that are out of scope or expanding the scope.
- Strong NYSDOS influence on comments ranging from the growth inducing aspects of the project, to the location of the intake (i.e., in Haverstraw Bay), to the project's energy demand.
 - NYSDOS through its Coastal Zone Consistency Certification has significant discretionary approval over projects that are within the coastal zone or impact significant wildlife habitats.

○ **NYSDEC requirements beyond the scope of the DEIS.**

- For example, duration of pilot testing
 - NYSDEC believes that 12 months of pilot data is necessary for the DEIS to identify impacts including seasonality of water quality, energy consumption, and entrainment and impingement.
 - UWNy proposed a total of 3 months to supplement data included in the DEIS. The pilot will continue to collect data for an additional 9 months (that will be shared with the NYSDEC).

DEIS Status, (cont'd.)



Pilot Study Sampling Parameters	Quarter	Month	Week	Other
VOCs	X	X		
SVOCs	X	X		
Pesticides	X	X		
PCBs	X	X		
Metals		Same		
Radionuclides	X	X		
EDCs/PPCPs	X	X		
Pathogens	X			2x/ month
Process Performance		Same	Same	
Whole Effluent Toxicity				Same

Standard sampling protocol

Accelerated sampling to provide data for the
DEIS

○ What is the basis for determining the adequacy of a draft EIS?

- "...The lead agency should ensure that all relevant information has been presented and analyzed, but should neither expect nor require a "perfect" or exhaustive document. The degree of detail should reflect the complexity of the action and the magnitude and importance of likely impacts." (Emphasis supplied)
- "...Since one of the major purposes of a draft EIS is to give the public an opportunity to comment on the environmental issues raised, as well as the possible alternatives and mitigation offered to address those issues, settling on a resolution of one or more issues prior to public review would actually be counter to the intent of SEQR." (Emphasis supplied)

○ Must differences between the project sponsor's and lead agency's experts regarding interpretation of a technical issue be resolved prior to the lead agency determining to accept a draft EIS as complete?

- "No. It is not necessary to resolve these types of disputes before accepting the draft EIS as complete. In cases where there are valid differences in the interpretation of a technical issue, the lead agency should include both interpretations in the draft EIS. Providing both positions allows a reviewer to reach an independent determination regarding the impact." (Emphasis supplied)

NYSDEC SEQR Handbook, (cont'd)



○ What may a lead agency do if a project sponsor refuses to make requested changes?

- “If a lead agency's request for the inclusion of necessary information is ignored or refused, the agency may continue to reject the resubmitted draft EIS.”
- “...When there is this kind of fundamental disagreement between the lead agency and the preparer of the draft EIS, the lead agency may explain the disagreement in its Notice of Completion and invite public comment related to the disagreement, in addition to comments on the draft EIS itself. Additionally, the lead agency should repeat its criticisms of the draft EIS as written comments during the public review and comment period. This process will allow the disagreement concerning EIS content to be resolved via the lead agency's responses to comments in the final EIS.” (Emphasis supplied)



DEIS Next Steps and Risks

○ Next steps:

- Meet with NYSDEC to discuss NOIA comments and pilot data.
- Establish regular meetings with NYSDEC.
- Expect 3 – 4 iterations of DEIS before “complete” for public review, approx. June 2011.
- Engage Governor’s office, senior political appointees and institutional civil servants at key state agencies.

○ Risks:

- Availability of data from the Pilot Study postpone “completion” of the DEIS.
- DEIS represents Project with the most significant environmental impact and highest costs to mitigate the majority of these risks.
- The “precedent setting nature” of the Project used by NYSDEC to justify additional delays.

○ Direction requested

- Continue with accelerated Pilot sampling until NYSDEC determination on duration of Pilot data required for DEIS or reduce to standard sampling beginning in March.
- Begin the optimization phase of the Pilot or continue testing the baseline process.



Haverstraw Water Supply Project

GOVERNMENT OUTREACH

Government Outreach

○ Goals and objectives

- To frequently gauge decision makers' perceptions;
- To receive ongoing feedback from decision makers; and
- To build continuous awareness and support.

○ Project needs

- Relationships with current elected officials and political appointees
- Relationships with institutional civil servants
- Experience with public utilities and project development
- Strong Albany roots
- Continuous dialogue with Project Team

○ Identify firms to meet need

- Brown McMahon & Weintraub – current government affairs firm (~\$4,300 per month)
- Tonio Burgos & Associates – former government affairs firm
- Hinman Straub
- Other

Government Outreach, (cont'd.)



- **Meetings to take place with:**

- Tonio Burgos & Associates
- Hinman Straub

- **Direction requested:**

- Establish process to select firm.
- Engage Governor's office immediately or wait until government affairs firm is retained.

Haverstraw Water Supply Project

COMMUNICATIONS AND COMMUNITY RELATIONS

Communications and Community Relations



○ Goals

- To deliver communication strategies that increase stakeholder awareness and confidence in United Water and the Haverstraw Water Supply Project and to facilitate the approval and successful implementation of the project.

○ Key Issues

- Water Quality
- Cost
- Environment
- Need
- Comparison to Alternatives
- Energy
- Management of Lake Deforest
- Economic Development
- BU Operations
- Privatization/Foreign Ownership
- Joint Proposal Milestones

Communications and Community Relations, (cont'd.)



○ Pilot Facility

- The pilot facility as the public showcase for the project.
- Presentation of water quality report based on pilot data.
- Engage stakeholders by conducting public open houses.
 - Conducted on February 16th.
 - Target: 1 open house per month.
- Conduct organizational or group tours (civic organizations, special interest, fire personnel, etc.).
 - Meeting at Pilot with Rockland Coalition for Sustainable Water on February 9th.
 - Target: 1 group meeting per month.
- Conduct tours for United Water employees.
 - Roundtable for employees who are Rockland residents held on January 7th.
 - Ongoing employee tours.



Communications and Community Relations, (cont'd.)

○ Pilot Facility, (cont'd.)

- Video
 - Tool for school age children and general public.
 - Evolved to a more detailed educational video beyond just the pilot.
 - Draft script provides historical context, alternatives, cost, water quality, treatment, and benefits.
 - Approximate cost: \$12,000 – \$15,000 excluding licensing fees for animations.

Communications and Community Relations, (cont'd.)

○ Stakeholder Engagement

- Business Leader Roundtable: Postponed.
 - Expanded to include Community Leaders.
 - Postponed from January 24th. Original facilitator suffered serious medical condition.
 - Challenges securing an appropriate facilitator.
 - Preliminary discussions have been held with alternate facilitator.
 - Target date: April 2011

- Stakeholder Dialogue: Postponed.
 - Postponed from February 28th. Original facilitator suffered serious medical condition.
 - Challenges securing an appropriate facilitator.
 - Alternate facilitator has not been identified.
 - Target date: Pending selection of facilitator, to occur before June 2011 decision point.

- Customer advisory panels: Ongoing.
 - NY CAP meeting: March 21st.
 - HWSP CAP meeting: March 22nd.



Communications and Community Relations, (cont'd.)

○ Customer Communications

- Launch further customer communications using present knowledge and in response to public opinion survey results, dialogues, and customer advisory panels.

○ Outreach and Education/Local External Affairs

- School Program: Lecture series initiated in North Rockland. Wider deployment pending initial roll-out review.
 - February 17th: tour for North Rockland Technology Teachers Association.
 - Tours for school age children originally planned to Present a video and use viewing windows and models without taking children into process area.
 - Safety review of Pilot underway to identify improvements to allow tours for children.
- Municipal board meetings: Ongoing. Extend in-person, on-the-record invitations to present on project to municipal legislative and executive bodies in Rockland.
- Greater coordination with Project strategy necessary.



Communications and Community Relations, (cont'd.)

○ Measurement - Public Opinion Survey

- Goal: Assess public opinion, perceptions and preferences.
- Approach: Establish a baseline using approximately 60 question survey lasting approximately 20 minutes. In contrast to customer satisfaction surveys, the public opinion survey should disguise who commissioned the survey.
- Results of survey to be used to focus and shape messaging, customer communications, etc.
- Status: Survey conducted Monday, 2/28 – Wednesday, 3/2.
- Next steps:
 - McLaughlin & Assoc. presentation of survey results to Steering Committee.
 - Revise Customer Communications Plan in response to survey results.

Haverstraw Water Supply Project

RISKS/OPPORTUNITIES

Risks/Opportunities



○ Risks:

- NYSDEC expands the scope for the DEIS, increasing the development costs.
 - For example, requiring aquatic sampling to determine the efficacy of a 2 mm wedgewire screen at the intake location.
- Availability of data from the Pilot Study postpones “completion” of the DEIS.
- DEIS represents Project with the most significant environmental impact and highest costs to mitigate the majority of these risks.
- The “precedent setting nature” of the Project used by NYSDEC to justify additional delays.
- New York State Department of State requires the intake be moved out of Haverstraw Bay.
- UW does not effectively engage new gubernatorial administration to positively direct state agencies.
- Without appropriate levels of stakeholder engagement, public confidence will wane.

Risks/Opportunities, (cont'd.)



○ Opportunities:

- New governor provides opportunity to highlight economic benefits of the Project and gain favorable positioning with the new administration and state agencies.
- Public Opinion Survey presents an opportunity to assess public perception and focus messaging.
- Pilot Study is a useful tool to demonstrate that the technology can effectively treat Hudson River water.
- To date, the New York State Department of Health has generally been more cooperative and supportive than other state agencies.
- Engagement of the New York State Department of Public Service to raise cost awareness with the NYSDEC.
 - The Project Team discussed the NYSDEC with NYSDPS Staff and requested assistance from NYSDPS Staff. NYSDPS Staff was sympathetic but candidly stated that they have little sway the NYSDEC.

Haverstraw Water Supply Project

Steering Committee Meeting
March 3, 2011

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
Work Product – Privileged & Confidential

Haverstraw Water Supply Project

Steering Committee Meeting
April 21, 2011

www.unitedwater.com/hwsp



Prepared at the Request of Counsel / Attorney
Work Product – Privileged & Confidential



Agenda

- **Rockland County Survey Results Presentation by McLaughlin & Associates (2:00 – 2:45 PM)**
- **Break (2:45 – 2:50)**
- **Communications and Community Outreach**
- **Project Status**
 - Project Cost and Schedule
 - Pilot Study
 - DEIS Status
 - Government Outreach
- **Risks/Opportunities**
- **Action Item Review**
- **Meeting Objectives**
 - Brief/obtain guidance from Steering Committee on Project status.
 - Brief/obtain guidance from Steering Committee on Communications and Community Outreach process.



Haverstraw Water Supply Project

ROCKLAND COUNTY SURVEY RESULTS PRESENTATION

Haverstraw Water Supply Project

COMMUNICATIONS AND COMMUNITY RELATIONS PLAN

Communications and Community Relations



- **Revised communications plan**
 - Strategy: What should we do?
 - Methods: How should we do it?
 - Prioritization: What are the critical activities?
 - Ongoing efforts: What have we been doing?
- **Direction requested on strategy, methods and prioritization.**
- **The Rockland County survey, coupled with pilot results, provides the data necessary to develop focused communications to address issues of specific concern to stakeholders.**
- **This revised strategic plan outlines strategies, messages and methods that are derived from survey results.**

Communications and Community Relations- Water Quality



○ Survey findings:

- 43% of respondents say the quality of drinking water from the Hudson River would be poor;
- 46% of respondents said the number 1 reason why they oppose the project is because the Hudson River is dirty;
- 11% of respondents said the water can't be purified.

○ Goal:

- Based on survey findings, improve stakeholder perception and confidence in the Hudson River as a drinking water source and United Water's ability to treat water to meet or surpass all government standards.



Communications and Community Relations- Water Quality, (cont'd.)

○ Strategy:

- Leverage results of pilot plant and present comparison with UWNY's current system and other systems/sources (i.e. bottled water, Poughkeepsie).
- 42% of respondents would be more likely to support the project if it were monitored by local and state authorities in accordance with the Safe Water Drinking Act. Highlight in customer communications the fact that the water produced will be monitored by authorities.
- Use words like “pure” and “purification” to describe finished water and treatment process in project tagline/slogan and messaging.



Communications and Community Relations- Water Quality, (cont'd.)

○ Strategy, (cont'd)

- Survey finding: 46% of respondents said the number 1 reason why they oppose the project is because the Hudson River is dirty;
- Use quotes issued by environmental groups, state agencies and other reputable sources about Hudson River water quality.
- Examples:
 - “The river is in better condition now that it probably has been at any time during the industrial age.” (Source: John Cronin, former Hudson Riverkeeper)
 - “Today, the Hudson's waters flow cleaner than they have in decades. Years of hard work by dedicated scientists, politicians, and river-lovers have opened the Hudson's shores to swimming, fishing, and boating.” (Source: Feature on Hudson River: A River that Flows Two Ways by NY DEC at www.dec.ny.gov)

Communications and Community Relations- Additional Issues from Survey Findings

- **Opportunity: Strong interest in the project**
 - Survey finding: 74% of respondents expressed a desire for more information.
 - Respond to the public's strong interest in learning more about the project.
- **Opportunity: Shape opinion, reinforce or change opinions of customers**
 - Survey findings:
 - Help shape the opinion of those who are not aware of the project. (62%)
 - Reinforce opinion of those who are aware and favor the project (38%)
 - Change the opinion of those who are aware and oppose the project (45%)
 - Shape opinion before NGOs have the opportunity to do so.
 - Help inoculate the project against present and future NGO attacks.



Communications and Community Relations- Additional Issues from Survey Findings, (cont'd.)

○ Opportunity: Leverage Strengths

- Survey finding: 71% of respondents rate the quality of United Water's service to be excellent or good.
- Leverage United Water's position as a reliable service provider to instill confidence in customers that the level of service to which they are accustomed will not change.

○ Opportunity: Use demographic data to target specific customer groups

- Direct specific messages on economic benefits to Haverstraw customers.
 - Survey finding: 41% of respondents are more likely to support the project knowing it will pay significant property taxes
 - 55% of respondents said that the economy – property taxes and jobs -- is the most important issue for Rockland County.
- Direct specific messages on the benefits of the project weighed against the Ambrey project to Stony Point customers.
 - Survey findings:
 - 72% prefer a new reservoir
 - 42% when customers learn that Ambrey would be more expensive
 - 78% would only be willing to pay up to 10% more for Ambrey.



Communications and Community Relations- Additional Issues from Survey Findings (cont'd.)

○ Opportunity: Increase Confidence: The Value Proposition

- Increase confidence in United Water's ability to choose the optimal long-term water supply project for Rockland County when weighed against alternatives. (Survey finding: 49% of respondents prefer the Hudson River water over wastewater but 72% prefer a new reservoir.)
 - Our job is to convince the public that this project will deliver the purest water at the best price.



Communications and Community Relations- Methods

- **The market survey suggests an opportunity for United Water to define the project and influence the opinions of all stakeholder groups.**
 - Short-term plan:
 - The remainder of 2011 represents a crucial time period when the DEC is expected to deem the DEIS acceptable for public review and issue draft environmental permits.
 - The urgency to inform and educate the public with an intensified customer communications campaign is paramount.
 - The need to define the project is bolstered by survey findings that indicate that nearly 75% of respondents have an appetite to learn more about the project.
 - Long-term plan:
 - Conduct tracking poll in October 2011 and re-assess/revise communications plan accordingly.
 - Continue comprehensive plan in 2012-2013 and beyond in response to future public review process, adjudicatory hearing, and Department of State Coastal Zone consistency determination.



Communications and Community Relations- Methods (cont'd.)

- **Specific data from the survey identifies both the most popular information sources in the market as well as the preferred methods to reach Rockland residents.**
 - Survey respondents most often receive local news from The Journal News (54%) and News 12 (14%).
 - The Journal News has a reach of 150,000 residents (some may not be UWNY customers) and Cablevision is the dominant cable provider in the county.
 - Survey respondents would like to receive information regarding the project primarily through local media (32%) and direct mail (29%).
 - Survey supports print advertisement in The Journal News. Despite a declining readership, customers still prefer receiving information through their local newspaper.
 - Direct mail offers the opportunity to address all customers in the service territory, rapidly revise and shift messages and/or target specific messages at specific customer groups.
 - The cost "per impression" may be high, but the message is more likely to reach the intended audience and create less waste.
 - Direct mail reinforces loyalty and allows for more direct, in-depth communication.

Communications and Community Relations- Methods (cont'd.)

○ Suggested Priorities

- Direct mail
- Print advertisement
- Cable TV
- Brochure(s) and fact sheets
- Project Video
- Media relations



Communications and Community Relations- Methods (cont'd.)

○ Direct mail

- Postcards
 - Suggested launch date: May
 - Frequency: one per month
 - Overall flight: Six months (reassess with tracking poll in October)
 - May: Water Quality (All)
 - June: Economic Benefits (Haverstraw), Ambrey (Stony Point), General-define project (Other Towns)
 - July: General-define the project (All)
 - August: Service Reliability (All)
 - September: Water Quality (All)
 - October: Economic Benefits (Haverstraw), Ambrey (Stony Point), General-define project (Other Towns)
 - Channel: Every United Water customer in Rockland
 - Format: 6 X 9
 - Messages: Water quality, define project, service reliability, economic benefits, HWSP vs. Ambrey
 - Estimated printing/sorting/postage cost: \$26,000 each for total program cost of \$156,000
 - Production costs: incorporated in communications consultant fees



Communications and Community Relations- Methods (cont'd.)

○ Newspapers

- Print advertisement: Journal News
 - Suggested launch date: May 1
 - Weekly frequency: Thurs., Fri, Sunday
 - Overall flight: Six months
 - Channel: A section
 - Format: 1/4-page (color)
 - Reach: 150,000 daily
 - Messages: Water quality, Define project, Economic benefit/cost, Service reliability
 - Estimated media cost: \$50,000
 - Production cost: incorporated in communications consultant fees



Communications and Community Relations- Methods (cont'd.)

○ Newspapers, (cont'd.)

- Media relations

- Sustained news coverage of the projects developments including:
- Pilot plant results
- DEIS completeness
- In addition, we will attempt to place commentaries and letters to the editor that support the project on these topics.

Communications and Community Relations- Methods (cont'd.)

○ Cable TV

— Cablevision

- Suggested launch date: June 1
- Since cable TV is a preferred method of receiving information about the project, a steady stream of cable TV spots should be aired.
- Existing inventory of TV commercials focus on need, source reliability and economic benefits and should continue to be used. However, new cable spots should be produced that rely on data from the survey and focus on water quality and defining the project.
- Weekly frequency: 50 spots
- Overall flight: Six months
- Channel: News programs, selected cable shows
- Format: 30 seconds
- Messages: Water quality, define project
- Estimated media cost: \$65,000
- Estimated production cost: \$30,000 (\$15,000 each)



Communications and Community Relations- Methods (cont'd.)

○ Revised Project Brochure

- Suggested launch date: May
- Messages: Water quality, define project, all
- Intended Audiences:
 - Version 1: Governor's office and high-level officials/agency personnel- greater emphasis on economics
 - Version 2: local officials and public- greater emphasis on water quality and weighing the alternatives
- Estimated production cost: \$2,500 each
- Estimated printing cost: \$2500-\$5000 each depending on quantity

Communications and Community Relations, (cont'd.)



○ Ongoing outreach efforts

- Public open houses: increased number of dates selected and warmer weather may lead to greater attendance
- Project video: draft script aligned with survey results and revised plan ready for review
- Employee tours: to be completed by end of April
- Village board presentations: visited approximately 80% of Villages, Spring Valley Board to tour pilot on 4/29
- Public events: ongoing
- Dialogues: secured facilitator for Community Leader Roundtable, will assess facilitator following roundtable targeted for May/early June
- School visits: teacher groups have visited pilot, following safety review plans being finalized to bring students

Communications and Community Relations, (cont'd.)



○ Direction requested:

- Proposed Approval Process for Outreach Materials
 - Stage 1: Agreement by project team members
 - Stage 2: Approval by Rich Henning and Mike Pointing
 - Stage 3: Option for Steering Committee to approve

Communications and Community Relations, (cont'd.)



- In order to fully effectuate all components of the plan, either additional resources should be applied or some activities should be considered higher priorities than others.



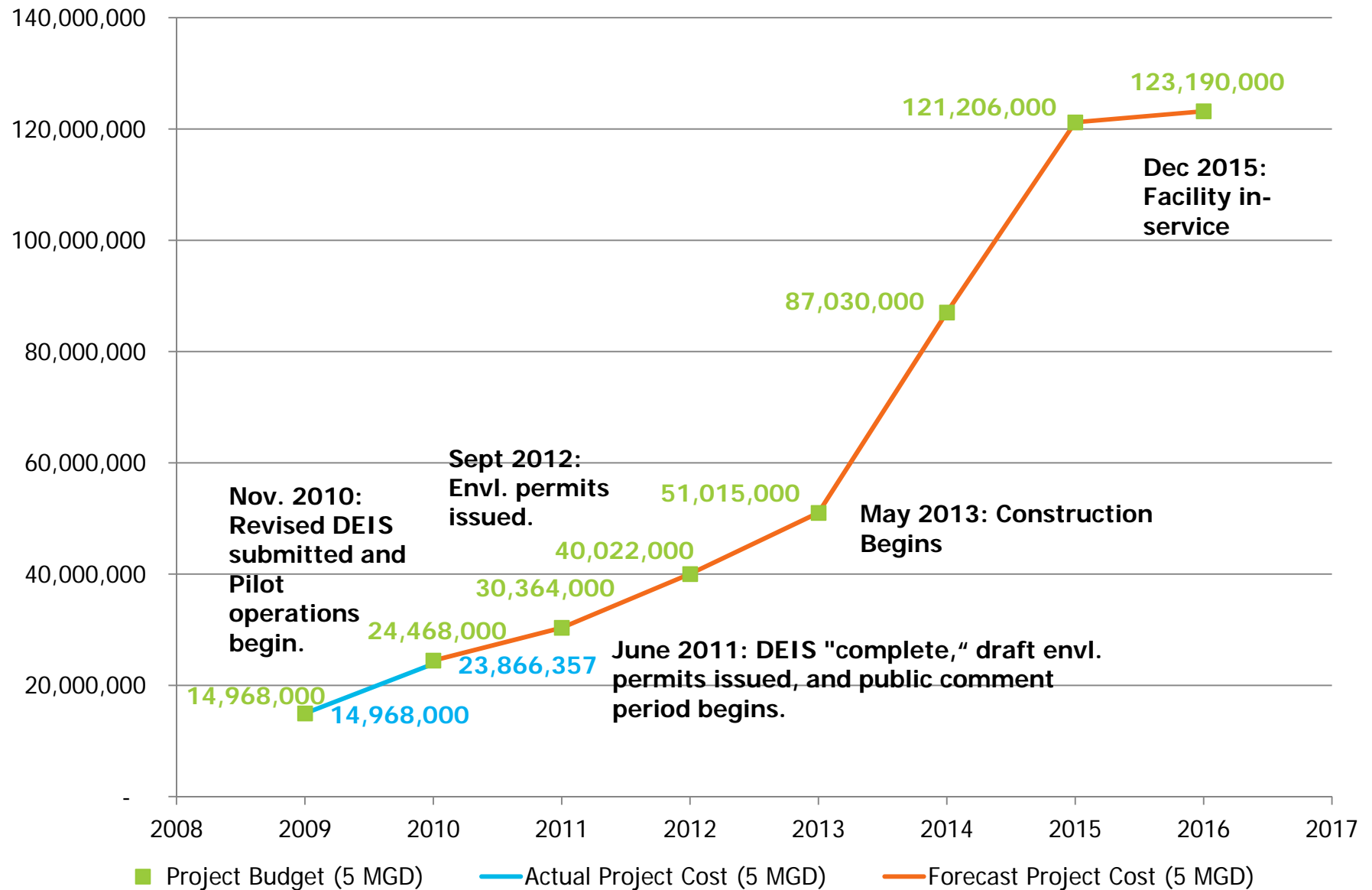
Haverstraw Water Supply Project

PROJECT STATUS

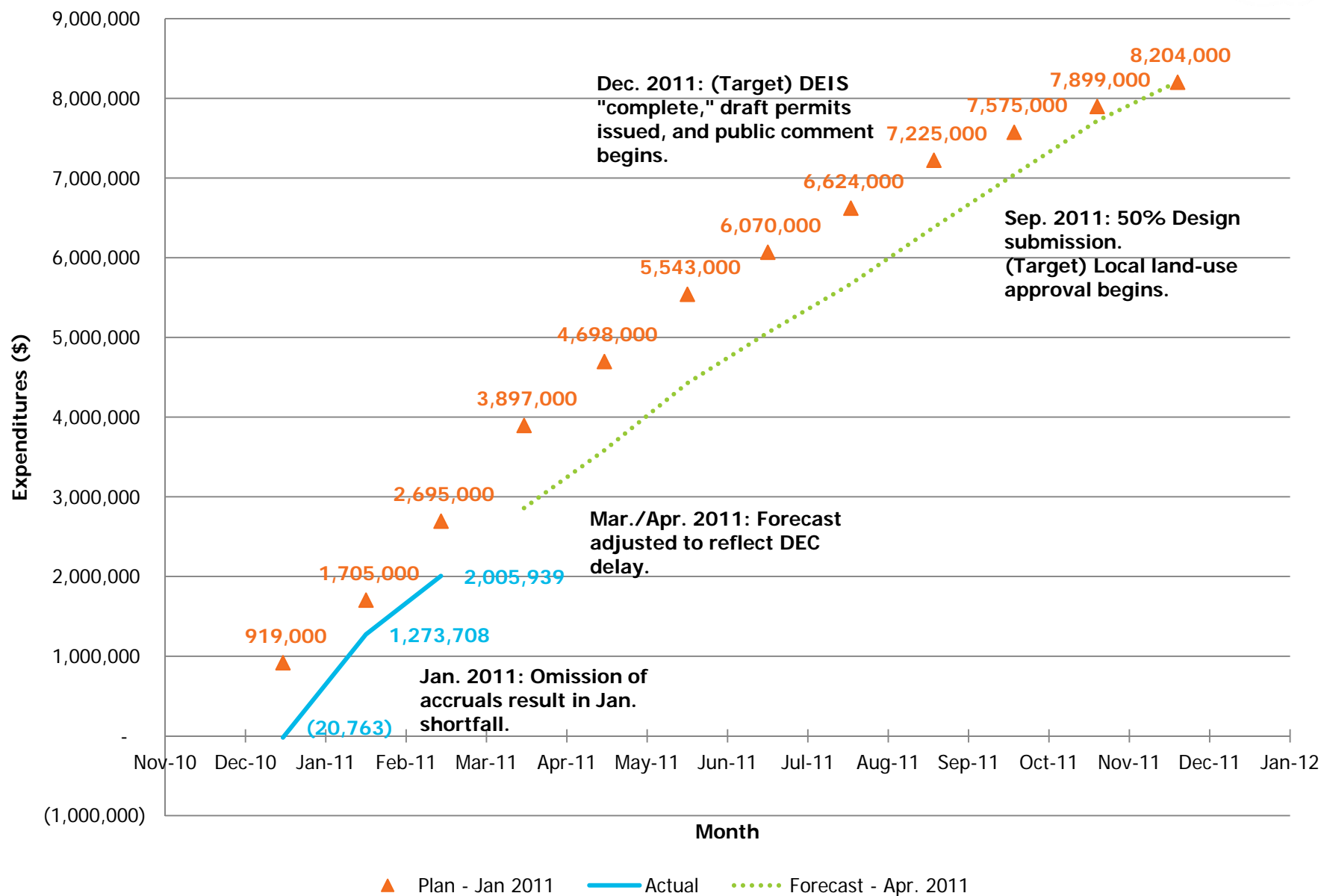
Haverstraw Water Supply Project

PROJECT COST & SCHEDULE

Project Costs



Project Costs – 2011 Plan



Project Schedule



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Submit Project Description	X									
Project Design	X									
Submit Conceptual Design	X									
Complete 50% Design				X						
Prepare DEIS and Envl. Permits				X						
Submit DEIS and Envl. Permits		X								
DEIS Agency Review		X								
DEIS Public Review										
Address Public Comments (FEIS)										
FEIS Issued										
Draft Envl. Permits Issued										
Obtain Envl. Permits				X						
Pilot Study										
Complete Pilot Studies				X						
Construction										
Begin Construction										
In Service										

Baseline
Current Status
Milestone



Project Schedule – EIS and Permitting



	2011												2012												2013												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
Draft EIS Complete																																					
Draft Permits Issued																																					
Public Comment Period																																					
(Potential) Adjud. Hearing																																					
Final EIS Issued																																					
Findings Statements																																					
Agency Permits Issued																																					
DOS CZMA Consist. Cert.																																					
Local Permitting/Approvals																																					
Begin Construction																																					

Baseline
Current Status
Milestone



Internal Milestones

Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2

- EIS deemed complete and draft permits issued – 6/30/2011 *
 - Adjudicatory hearing determination – 8/30/2011
 - Evaluate stakeholder landscape – 8/30/2011
 - 50% Design – 9/30/2011
 - Decision Point – 10/15/2011
- * EIS dates likely to be impacted by NYSDEC 12/30/2010 NOIA.

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013

Internal Milestones, (cont'd.)



○ **Direction requested:**

- Material required to inform June 2011 decision point.
- Process for June 2011 decision point.



Haverstraw Water Supply Project

PILOT STUDY

Pilot Study Status



- **Water quality data collected at intake location with buoy from 2008 – 2010 (buoy removed when river freezes). Year long sampling program conducted at multiple locations and depths from 2007 – 2008.**
- **Data collection for DEIS underway since December 2010, through February 2011. Total of 4 months of data collected, i.e., December 2010 – March 2011.**
 - DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- **Pilot Operations to date**
 - Treated approximately 12.1 million gallons of river water.
 - Approximately 3,000 laboratory samples analyzed.
 - Approximately 127 days of river water operations.
- **Preliminary findings**
 - Baseline Process, i.e., largest scale process with greatest environmental impacts, performed as expected.
 - Optimization of Baseline Process underway.

Pilot Study – Project Design Coordination

- **Water treatment process (“Baseline” water treatment process)**
 - Originally developed in consultation with Black & Veatch in 2006.
 - Based on water quality data from outside Haverstraw Bay.
 - Submitted to PSC in September 2007 (milestone requirement).
 - Used for impact analysis in 2008 and 2010 DEIS submissions.

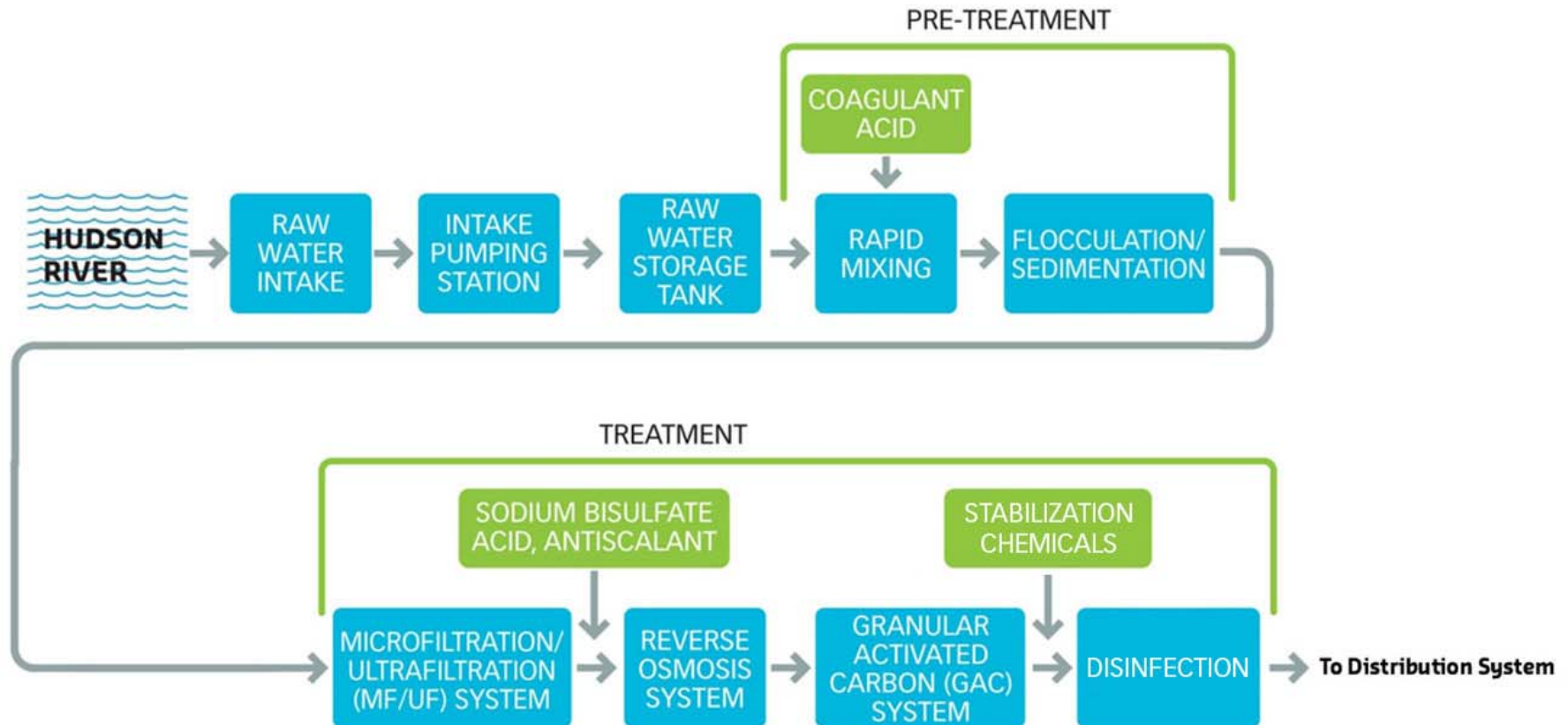
- **Pilot Study results to date show several significant optimizations to the water treatment process (“Optimized” water treatment process) from the Baseline (DEIS) water treatment process, including:**
 - Continuous pumping of river (raw) water (versus pumping at low tide), and combining sedimentation with raw water storage.
 - Postponement/elimination of granular activated carbon (“GAC”), and continuous operation of reverse osmosis.

- **Next steps**
 - Review optimizations with NYSDOH and obtain their input.
 - Review optimizations with SE and Degremont and obtain their input.
 - Continue to collect pilot data related to optimizations.

Pilot Study – Project Design Coordination, (cont'd.)



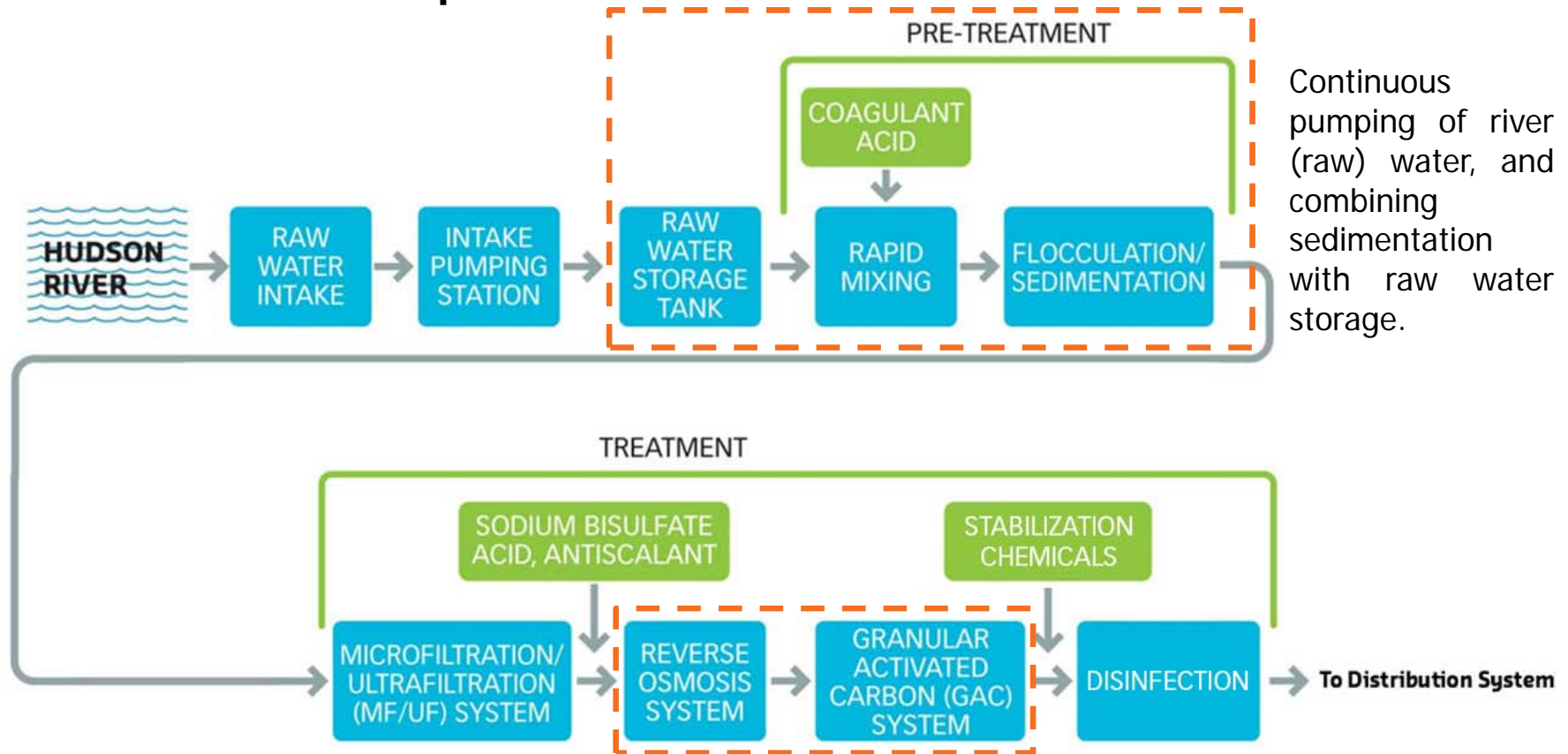
Baseline Water Treatment Process



Pilot Study – Project Design Coordination, (cont'd.)



Optimized Water Treatment Process



Postponement/elimination of granular activated carbon ("GAC"), and continuous operation of reverse osmosis.

Pilot Study – Project Design Coordination, (cont'd.)

- **March 19, 2010 Steering Committee Meeting, the following approach to achieve the September 30, 2011 Milestone (complete 50% design) was agreed upon:**
 - Process design: 50+%
 - Hydraulic grade: 50+%
 - Process Flow: 50+%
 - Site Plan: 50%
 - Architectural plan: 50%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 20%
 - This results in progressing the design to 50% for the average of all disciplines.

- **Project design status: approx. 30% design level**
 - Influenced by pilot data to date and minor process/equipment optimization.
 - Process design: 30%
 - Hydraulic grade: 30%
 - Process Flow: 30+%
 - Site Plan: 20%
 - Architectural plan: 30%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 10%



Pilot Study – Project Design Coordination, (cont'd.)

○ Decision point reached:

- Progress Baseline water treatment process to 50% with input from Pilot Study (i.e. equipment sizing, but no reduction in water treatment processes).

OR

- Progress Optimized water treatment process identified through Pilot Study

OR

- Progress both designs with limited design effort applied areas that are effected by optimization (i.e., GAC, raw water storage tanks).

○ Risks:

- Progress Baseline water treatment process
 - Design will likely not be constructed.
- Progress Optimized water treatment process
 - Varies from DEIS design and other communications.
 - NYSDEC may request Optimized design be further evaluated in DEIS to show that it has less impacts than Baseline.
- Progress both designs
 - Progressing two designs.



Pilot Study – Project Design Coordination, (cont'd.)

○ Proposed Next Steps

- Progress both the Baseline and Optimized designs.
- Revise messages to discuss optimization and potential to eliminate or defer installing processes without impacting water quality.

○ Future decision point: June 30, 2011 Steering Committee meeting

- Submit Baseline 50% design or Optimized 50% design.

Pilot Study – DEIS Coordination



- **January 26, 2011: NYSDEC indicates that selection of a wedgewire screen with a slot opening of ½ mm for the full-scale intake will eliminate the need for location specific entrainment/impingement sampling with a 2 mm wedgewire screen during the Pilot Study.**
 - UW expressed 2 concerns regarding the ½ mm wedgewire screens:
 - The ½ mm wedgewire screens would disturb a larger area of the river bottom, which the NYSDOS may not find approvable.
 - Operational issues with the ½ mm wedgewire screens.
 - NYSDEC indicated that they would discuss the use of ½ mm wedge wire screens with NYSDOS
 - UW agreed to review the NYSDEC's proposal.

- **Use of ½ mm wedge wire screens at the Pilot:**
 - Objective: evaluate the operational impact of ½ mm wedgewire screens in the Hudson River.
 - Permit amendments not required since existing intake structure will be used, and disturbed area will not increase.
 - Submission of notification to ACOE, NYSDEC, and NYSDOS.
 - Material cost: approx. \$6,000 - \$7,500
 - Installation cost: approx. \$15,000

Pilot Study – DEIS Coordination, (cont'd.)



- **Risk:**

- NYSDEC could require additional testing of ½ mm wedgewire screens.

- **Direction requested:**

- Install ½ mm wedgewire screens at Pilot to evaluate operational considerations.

Haverstraw Water Supply Project

DRAFT ENVIRONMENTAL IMPACT STATEMENT STATUS

DEIS Status



○ April 11, 2011 meeting with NYSDEC

- Overall the meeting is a step in the right direction with the NYSDEC.
- As discussed in their April 4th letter, the NYSDEC indicated that a SPDES permit will be required for the reverse osmosis concentrate (“brine”) and that 6 additional months pilot data (i.e., April 15th – October 15th) will be needed to establish permit conditions.
 - After discussing that the pilot is not a demonstration plant, and why data from the pilot would not be useful in establishing permit limits, the NYSDEC agreed to review the analysis in the November 2010 DEIS and subsequent UWNVY submissions.
 - The NYSDEC also agreed to a technical meeting to discuss establishing SPDES permit and limits after they reviewed the analysis in the November 2010 DEIS and subsequent UWNVY submissions.
- The NYSDEC on two occasions mentioned that they will work with UWNVY on resolving all other issues not related to Pilot Study data.
 - In an effort to resolve all other issues not related to Pilot Study data, the NYSDEC offered to review revised DEIS chapters as they are available.
 - The sections of the DEIS that are related to the Pilot Study data will be revised to allow for relatively easy revision as the Pilot Study data is available. These revised sections will be then sent to the NYSDEC for their review.
 - If this occurs and Pilot Study data is the only open issue as of October 15, 2011, the NYSDEC should be able to quickly analyze the Pilot Study data and deem the DEIS complete by the end of 2011.

DEIS Status, (cont'd.)



○ April 11, 2011 meeting with NYSDEC, (cont'd.)

- The organization of the November 2010 DEIS was discussed. NYSDEC indicated that they did not consult the “annotated scope” that was provided with the hard copy of the DEIS.
 - NYSDEC agreed to review the annotated scope and identify which of their December 30, 2010 comments were not applicable.
 - It is likely, now that the NYSDEC sees the rationale behind the DEIS organization, that the NYSDEC will not require its reorganization. This will

○ Next steps:

- Continue meetings with NYSDEC to discuss NOIA comments and pilot data.
- Establish regular (bi-weekly) meetings/workshops with NYSDEC.
- Expect 3 – 4 iterations of DEIS before “complete” for public review, approx. December 2011.
- Engage Governor’s office, senior political appointees and institutional civil servants at key state agencies.

○ Risks:

- Availability of data from the Pilot Study postpone “completion” of the DEIS.
- DEIS represents Project with the most significant environmental impact and highest costs to mitigate the majority of these risks.
- The “precedent setting nature” of the Project used by NYSDEC to justify additional delays.



Haverstraw Water Supply Project

GOVERNMENT OUTREACH

Government Outreach



- **Meetings to take place with:**

- Tonio Burgos & Associates
- Hinman Straub

- **Subject to Commitment Committee approval Tonio Burgos & Associates (“TBA”) retained.**

- Kick-off meeting is planned for the 1st week of May.
- Coordination with Town of Haverstraw's lobbyist will occur after the kick-off meeting.
- After TBA is brought up to speed, meeting with Governor's office will occur.

Haverstraw Water Supply Project

RISKS/OPPORTUNITIES

Risks/Opportunities



○ Risks:

- NYSDEC expands the scope for the DEIS, increasing the development costs.
 - For example, requiring aquatic sampling to determine the efficacy of a 2 mm wedgewire screen at the intake location.
- Availability of data from the Pilot Study postpones “completion” of the DEIS.
- DEIS represents Project with the most significant environmental impact and highest costs to mitigate the majority of these risks.
- The “precedent setting nature” of the Project used by NYSDEC to justify additional delays.
- New York State Department of State requires the intake be moved out of Haverstraw Bay.
- UW does not effectively engage new gubernatorial administration to positively direct state agencies.
- Without appropriate levels of stakeholder engagement, public confidence will wane.

Risks/Opportunities, (cont'd.)



○ Opportunities:

- New governor provides opportunity to highlight economic benefits of the Project and gain favorable positioning with the new administration and state agencies.
- Public Opinion Survey presents an opportunity to assess public perception and focus messaging.
- Pilot Study is a useful tool to demonstrate that the technology can effectively treat Hudson River water.
- To date, the New York State Department of Health has generally been more cooperative and supportive than other state agencies.
- Engagement of the New York State Department of Public Service to raise cost awareness with the NYSDEC.
 - The Project Team discussed the NYSDEC with NYSDPS Staff and requested assistance from NYSDPS Staff. NYSDPS Staff was sympathetic but candidly stated that they have little sway the NYSDEC.

Haverstraw Water Supply Project

ACTION ITEMS

Action Items



- Review March 3, 2011 Action Items
- New Actions items

Haverstraw Water Supply Project

Steering Committee Meeting
April 21, 2011

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United Water New York Haverstraw Water Supply Project

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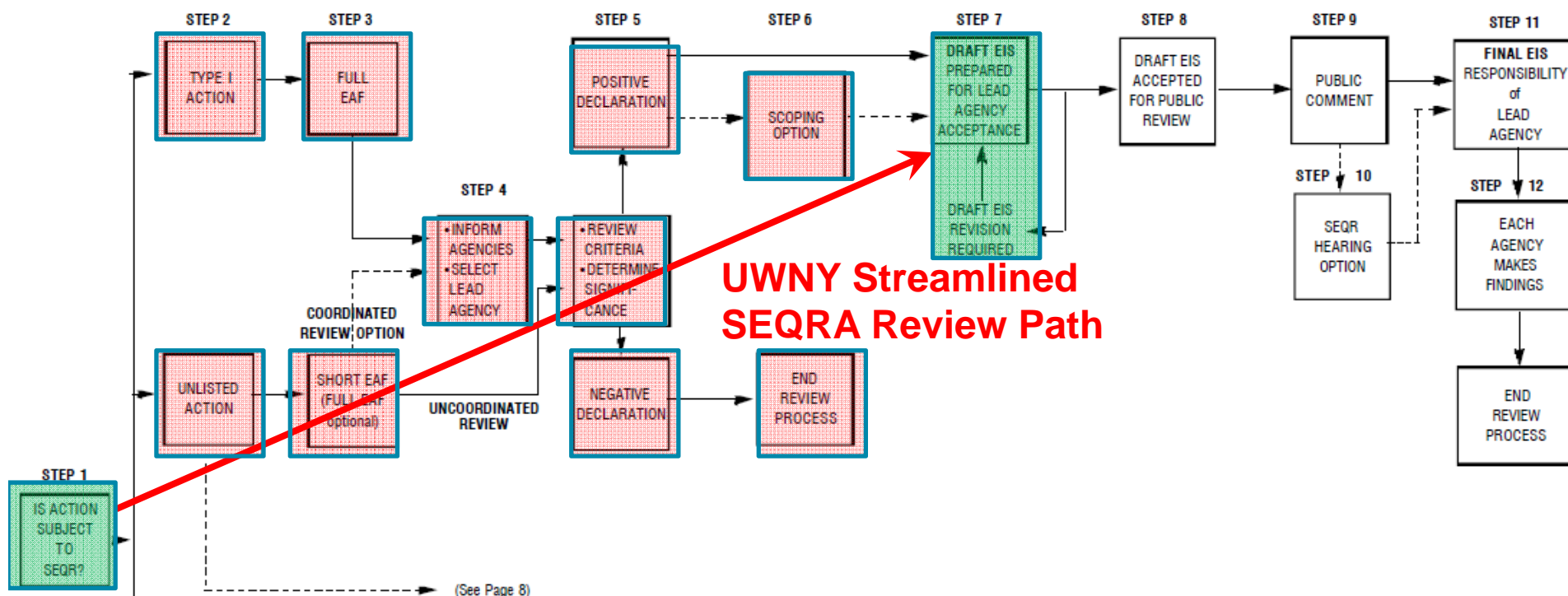
Overview

- **Meeting Objectives**
 - Brief/obtain guidance from Steering Committee on Project status.
- **Draft Environmental Impact Statement**
- **Permits**
- **Pilot Study and Project Design**
- **Stakeholder Management**
- **Schedule and Budget**
- **Next Steps**

Haverstraw Water Supply Project

DRAFT ENVIRONMENTAL IMPACT STATEMENT AND PERMITS

DEIS Status



DEIS Status, (cont'd.)



- September 26, 2008 – Draft Environmental Impact Statement (“DEIS”) and environmental permit applications submitted.
- January 26, 2009 – NYSDEC notifies all involved agencies of its intention to assume lead agency status.
- April 2, 2009 – NYSDEC declares itself lead agency.
- May 7, 2009 – NYSDEC conducts public scoping session.
- July 1, 2009 – NYSDEC issues DEIS scope.
- July 2009 – September 2010: DEIS revision to address July 2009 scope.
- November 8, 2010 – Revised DEIS submitted to NYSDEC.

DEIS Status, (cont'd.)



- **November 2010 – December 2010: NYSDEC review DEIS against the scope.**
- **December 30, 2010: NYSDEC issues Notice of Incomplete Application (i.e., comments) on DEIS.**
- **January 5, 2011: UWNV requests meeting with NYSDEC to review comments.**
- **January 26, 2011: NYSDEC, NYSDOH, RCDOH, and UWNV meet to discuss the role of pilot data in the DEIS. UWNV reiterates its request for a meeting to review the NYSDEC's December 30th comments.**
- **April 4, 2011: NYSDEC issues letter regarding amount and level of pilot data to be incorporated into DEIS.**

DEIS Status, (cont'd.)



- **April 11, 2011: DEIS comment review meeting with NYSDEC Staff. NYSDEC Staff indicates that it expects DEIS to be “complete” and issue draft permits in October 2011.**
- **April 28, 2011: DEIS comment review meeting with NYSDEC Staff.**
- **May 19, 2011: DEIS comment review meeting with NYSDEC Staff.**
- **May 26, 2011: SPEDES permit / pilot data review meeting with NYSDEC Staff.**
- **June 15, 2011: Final DEIS comment review meeting with NYSDEC Staff. NYSDEC identifies additional (extensive) analysis required in DEIS.**
- **July 14, 2011: NYSDEC permits pre-application meeting with NYSDEC Staff.**

DEIS Status, (cont'd.)



○ DEIS revision

- May 18, 2011: 3 of 22 revised chapters submitted.
- June 28, 2011: 3 additional revised chapters submitted (i.e., 6 of 22 revised chapters).
- July 11, 2011: 2 additional revised chapters submitted (i.e., 8 of 22 revised chapters).
- August 2011 (target): 16 remaining chapters to be submitted.
- 6 chapters do not require revision. NYSDEC staff has indicated that these are adequate for public comment.

○ NYSDEC permits

- Additional sampling at Pilot: completed July 8, 2011.
- Target: August 2011 for submission of revised permit applications.

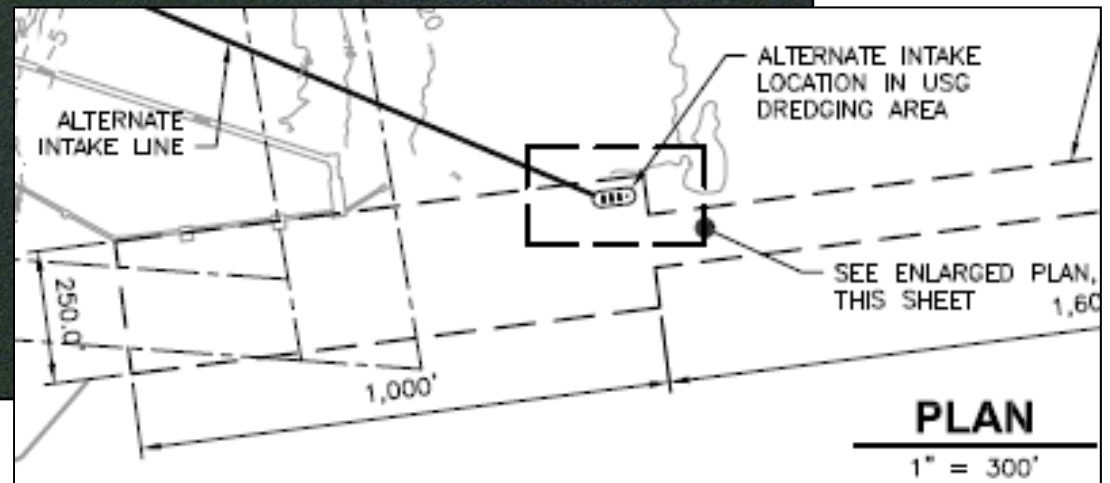
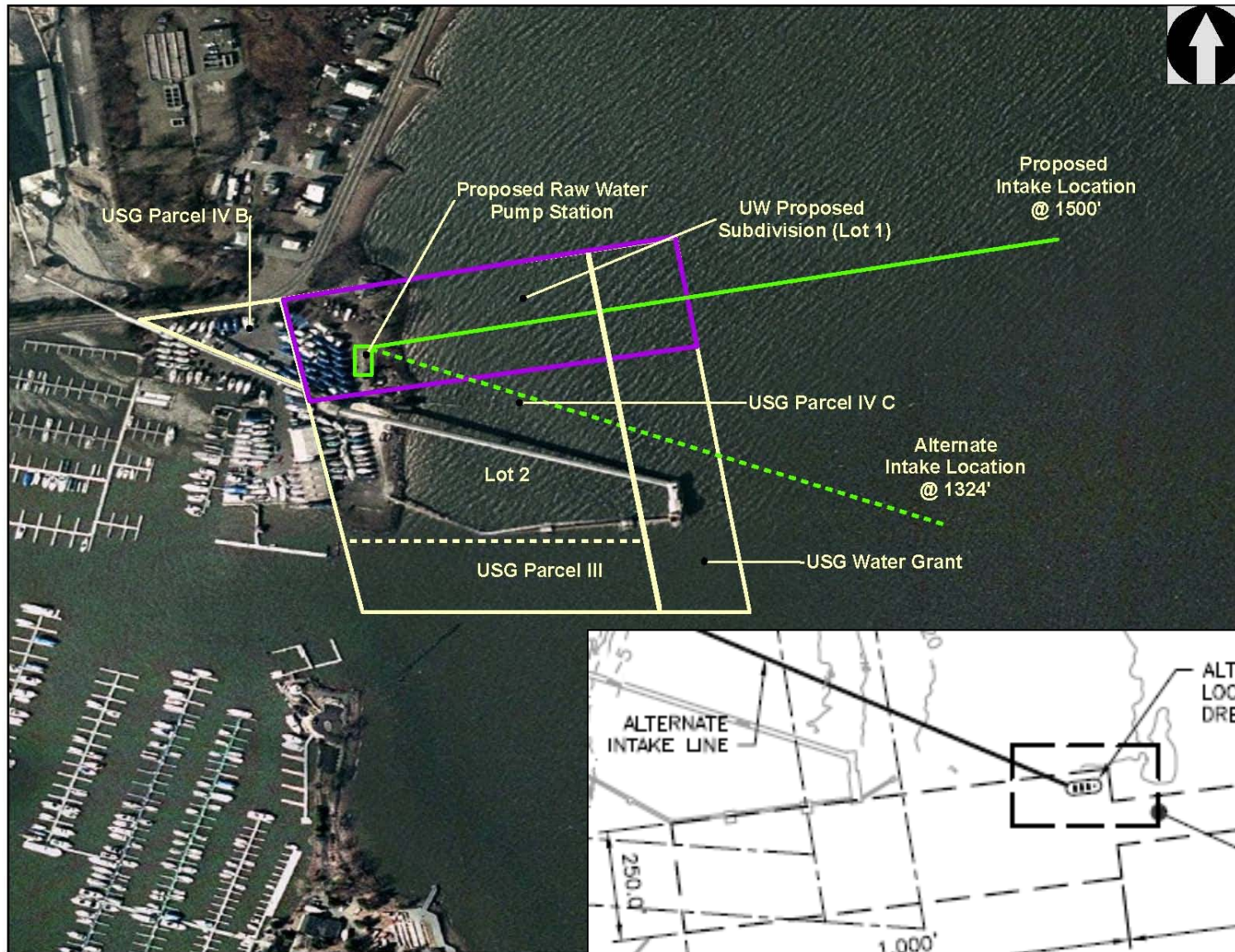
○ Regulatory Framework

- Improvement in receptiveness from the DEC.
- Indications from the DEC that the Project will be advanced through the environmental review process.
- Recent discussions with the senior members of the Governor's staff who have indicated interest in the Project and did not express any pre-dispositions against the Project.

Alternative Intake Location

- **NYSDOS Staff has indicted that since Haverstraw Bay is a Significant Habitat and Wildlife Area, any disturbance of a previously undisturbed portion of the River bottom is a significant impact.**
 - No evidence of prior disturbances has been found for the proposed intake location.
- **U. S. Gypsum (“USG”) dredged channel represents an alternative intake location that has been previously disturbed.**
 - The alternative location was not considered because USG specified that it did not want to impact shipments to its facility.
 - USG has privately mentioned that it plans to sell the Stony Point facility for residential development.
 - USG has been very difficult and slow to deal with, which will necessitate an aggressive negotiations to secure the alternative intake location.
 - Review of ship traffic indicates that alternative intake location will not infringe upon USG’s operations / dredging if the site is returned to operation.
 - Intake depth (at both locations) allows for recreational boating.

Alternative Intake Location, (cont'd.)





Alternative Intake Location, (cont'd.)

○ **Alternative Intake Location Risks:**

- NYSDEC or NYSDOH determine that water quality or aquatic samples taken at the proposed intake location are no longer valid.

○ **Direction requested:**

- Approaching USG to amend option agreement for alternative intake location.



Haverstraw Water Supply Project

PILOT STUDY

Pilot Study Status



- **Water quality data collected at intake location with buoy from 2008 – 2010 (buoy removed when river freezes). Year long sampling program conducted at multiple locations and depths from 2007 – 2008.**
- **Data collection for DEIS underway since December 2010, through February 2011. Total of 8 months of data collected, i.e., December 2010 – July 2011.**
 - December 2010 – March 2011: DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
 - March 2011 – Present: Data collection focused on supporting permits, and optimization of water treatment process.
- **Pilot Study**
 - The Pilot has treated approximately 25 million gallons of river water.
 - Approximately 6,000 laboratory samples collected and analyzed.
 - Approximately 246 days of river water operations.
 - Pilot Study focus has shifted to process optimization and the development of process design and operating parameters.

Pilot Study Status, (cont'd.)

○ Preliminary findings

- Optimization of Baseline Process underway. Optimizations to baseline process identified.
- Micro/Ultra-filtration ("MF/UF") flux rate can be significantly increased, resulting in smaller or less MF/UF units, which could reduce the building size.
- Increased recovery on Reverse Osmosis ("RO") at times as high as 90%, resulting in slightly less feed water, brine, and energy.
- Postponement of Granular Activated Carbon since RO Permeate analysis shows compounds are below detection levels or significantly below MCLs.

○ Water Quality Sonde

- Stolen around June 17th.
- Police report filed.
- Backup sonde installed.
- Replacement cost: Approx. \$10K.
- Camera at Pilot Intake site being installed to look out to sonde location.

Pilot Study Status, (cont'd.)



- **2.0 mm slot opening (NYSDEC and EPA "BTA") Intake screen replaced with 0.5 mm slot opening Intake screen.**
 - Significant hydroid and barnacle fouling noted on and in intake screen.
- **Testing of stainless steel and copper alloy screen coupons underway to determine appropriate materials of construction to reduce fouling.**
- **0.5 mm slot opening testing done at direction of NYSDEC**
 - 0.5 mm screen, according to NYSDEC, excludes 100% of aquatic life.
 - Beneficial in addressing NGO claims regarding efficacy of 2.0 mm screen.
 - CAPEX: \$2,500K higher than 2.0 mm.
 - OPEX: No impact.

Pilot Study Status, (cont'd.)



○ Water quality data:

- River (Raw) water quality: Good. Few detections of contaminants of concern at low levels, including PCB congeners and EDCs/PPCPs.
- Reverse Osmosis Permeate: Excellent. Few detections of contaminants of concern at low levels, including PCB congeners and EDCs/PPCPs.

○ PCB Congeners Analysis (DEC. 2010 – June 2011)

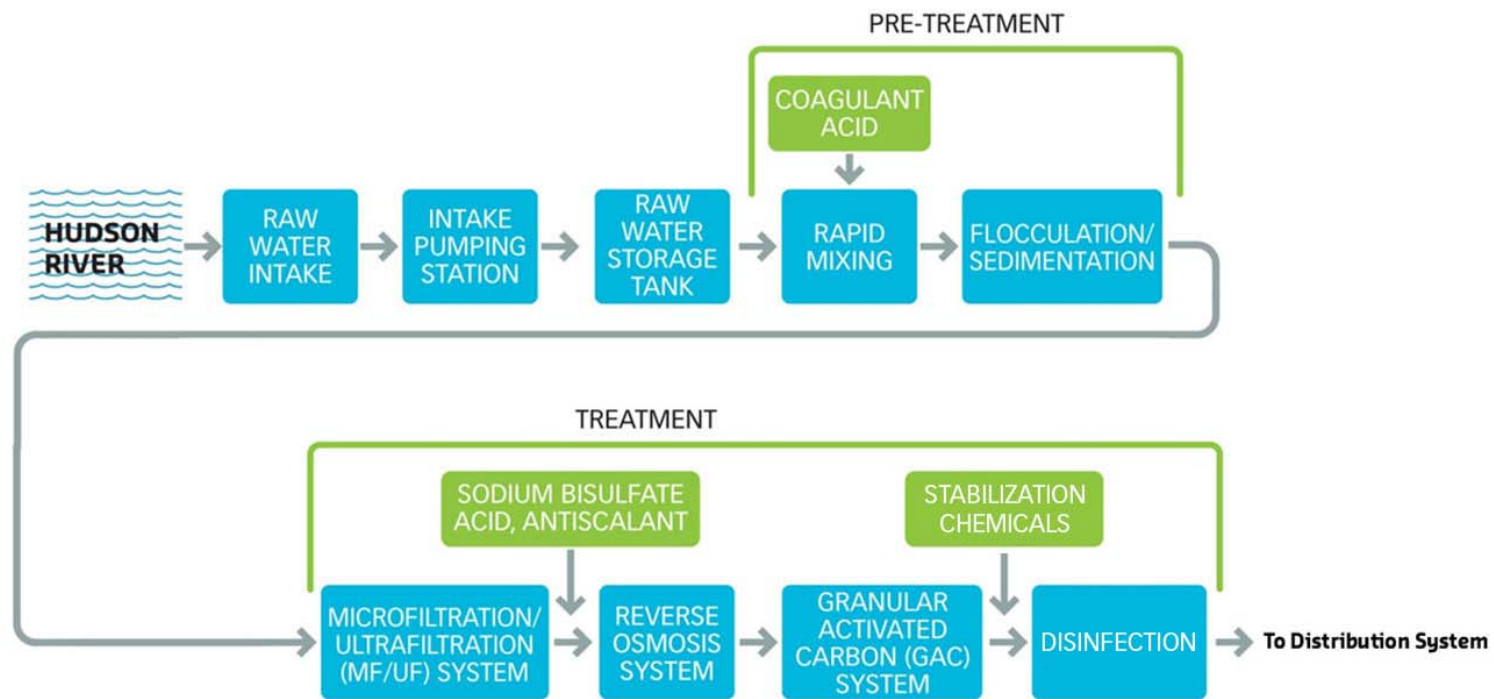
- NYSDOH and EPA MCL is 500 ng/L or 0.5 ug/L of Total PCBs.
- Not regulated by EPA, NYSDEC, or NYSDOH. No approved congeners analysis, so PCB aroclors are used. PCB aroclors, in the environment, degrade into PCB congeners (27 congeners identified by EPA).
 - No detections of PCB aroclors in the River water or RO Permeate.
- River Water: 17 detections of 7 PCB congeners out of 243 analyses (i.e., 9 samples analyzed for 27 congeners).
- RO Permeate: 4 detections of 1 PCB congener out of 243 analyses (i.e., 9 samples analyzed for 27 congeners).
 - 3 of the 4 detections were below the detection limit (1 ng/L or part per trillion), and 1 detection was at 2 ng/L, below the levels detected by the NYSDOH at Rhinebeck and Poughkeepsie.
- NYSDOH analysis of PCB congeners of Rhinebeck and Poughkeepsie finished water showed PCB congeners, but "none of the samples exceeded the 500 ng/L drinking water standard for PCBs." (Emphasis supplied) (*Occurrence of PCBs in raw and finished drinking water at seven public water systems along the Hudson River, May 2010*)

Project Design



○ Water treatment process (“Baseline” water treatment process)

- Originally developed in consultation with Black & Veatch in 2006.
- Based on water quality data from outside Haverstraw Bay.
- Submitted to PSC in September 2007 (milestone requirement).
- Represents largest scale project, therefore, most impacts.
- Used for impact analysis in 2008, 2010, and 2011 DEIS submissions.



Project Design, (cont'd.)



- **Several optimizations/efficiencies to the Baseline design have been identified through direction provided by the NYSDOH, the Pilot Study results, or advancement of the Project design, including:**
 - Reduce Raw Water Storage
 - CAPEX: Approx. \$4,000K potential reduction.
 - OPEX: Minor/no impact.
 - Addition of Powdered Activated Carbon ("PAC")
 - CAPEX: No impact.
 - OPEX: No impact.
 - Continuous operation of Reverse Osmosis
 - CAPEX: No impact.
 - OPEX: Minor increase if PAC is operated; OPEX estimates assume continuous operation.
 - Postpone installation of Granular Activated Carbon
 - CAPEX: Approx. \$3,000K potential reduction.
 - OPEX: No impact.
 - Utilize lime for stabilization in lieu of calcite contactors
 - CAPEX: No impact.
 - OPEX: No impact.

Project Design, (cont'd.)



- **Potential cost reduction to be moved to separate Contingency.**
 - Existing Contingency: \$13,000K.
 - Permit conditions have not been issued, therefore, significant permitting risk present.
- **As the design is progressed to the 50% level and beyond, it is anticipated that additional cost reductions will be identified.**

Project Design – September 2011 Milestone



- **July 7, 2011: Meeting with PSC Staff, County of Rockland, and Town of Haverstraw. PSC Staff agreed, subject to counsel's approval, with UWN's proposed approach to achieve the September 2011 milestone.**
- **Advance design to an average of 50% for all components.**
 - Process design: 50+%
 - Hydraulic grade: 50+%
 - Process Flow: 50+%
 - Site Plan: 50%
 - Architectural plan: 50%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 20%
- **Other requirements**
 - PE seal/signature required.

Haverstraw Water Supply Project

STAKEHOLDER MANAGEMENT

Stakeholder Management

- **Organized opposition to the Project continues to be active on a local and regional level.**
 - Supported by larger national and regional NGO's, such as Food and Water Watch and Hudson Riverkeeper. In line with “playbooks”, allowed for local groups to attempt to rouse public concern.
 - Opposition is engaged in a mobile, grassroots campaign using newspaper op-eds, letters to the editor, organization websites, public events, door-to-door petitioning, etc.
- **Stakeholder Management Goals:**
 - Increase awareness.
 - Influencing and building consensus.
 - Promote positive public opinion and support.
 - Mitigate influence of NGO groups.
 - Facilitate the approval and successful implementation of the Project
- **Goals achieved by playing to UWNV's strength, i.e., its ability to appeal to the entire customer base.**
 - Developed Project related materials to direct stakeholders to the Project website.
 - Update Project website using other successful U.S. desalination project websites as a resource / model. Pilot tours and open houses.
 - Corporate Social Responsibility: Meet with and support civic, community groups / organizations, and officials; engagement of local schools and teachers, etc.

Stakeholder Management, (cont'd.)



- **Government Affairs aimed at managing elected officials and local and state agencies.**
 - Increased engagement with NY Governor's office, senior political appointees, institutional civil servants at key state agencies, and local advocacy by the host Town as a major influencer of the Project.
 - Coordinating government affairs efforts with host community's government affairs consultant to leverage strengths.
 - Executive Management engagement of Key Decision Makers.

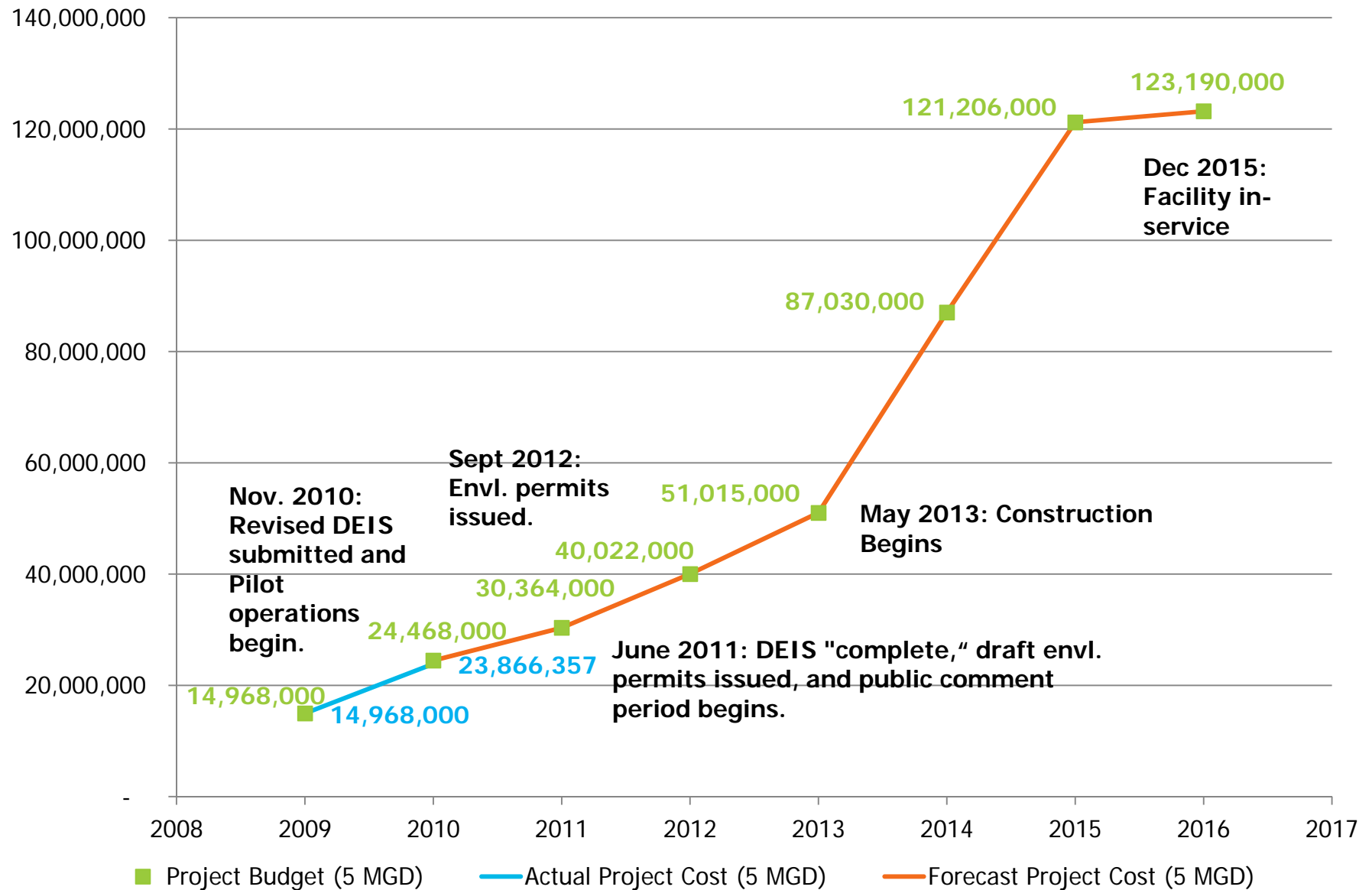
- **Recent discussions with the senior members of the Governor's Staff, have indicated interest in the Project and did not express any pre-dispositions against the Project.**
 - Governor's Staff and NYSDEC sought assurances that there will not be significant public opposition to drinking Hudson River water.

- **Next Steps:**
 - Roll-out revised Project website.
 - Continue direct mail pieces, and editorials.
 - Develop e-mail list and e-mail "blasts."
 - Continue local radio interviews.
 - Continue use of Pilot Facility for outreach.
 - Continue outreach to NGOs.
 - Cable TV spots.
 - Executive management meeting with Senior Governor's Office Staff.
 - Continued engagement of Governor's Office Staff and Key Decision Makers.
 - NY employees PAC development / government outreach.

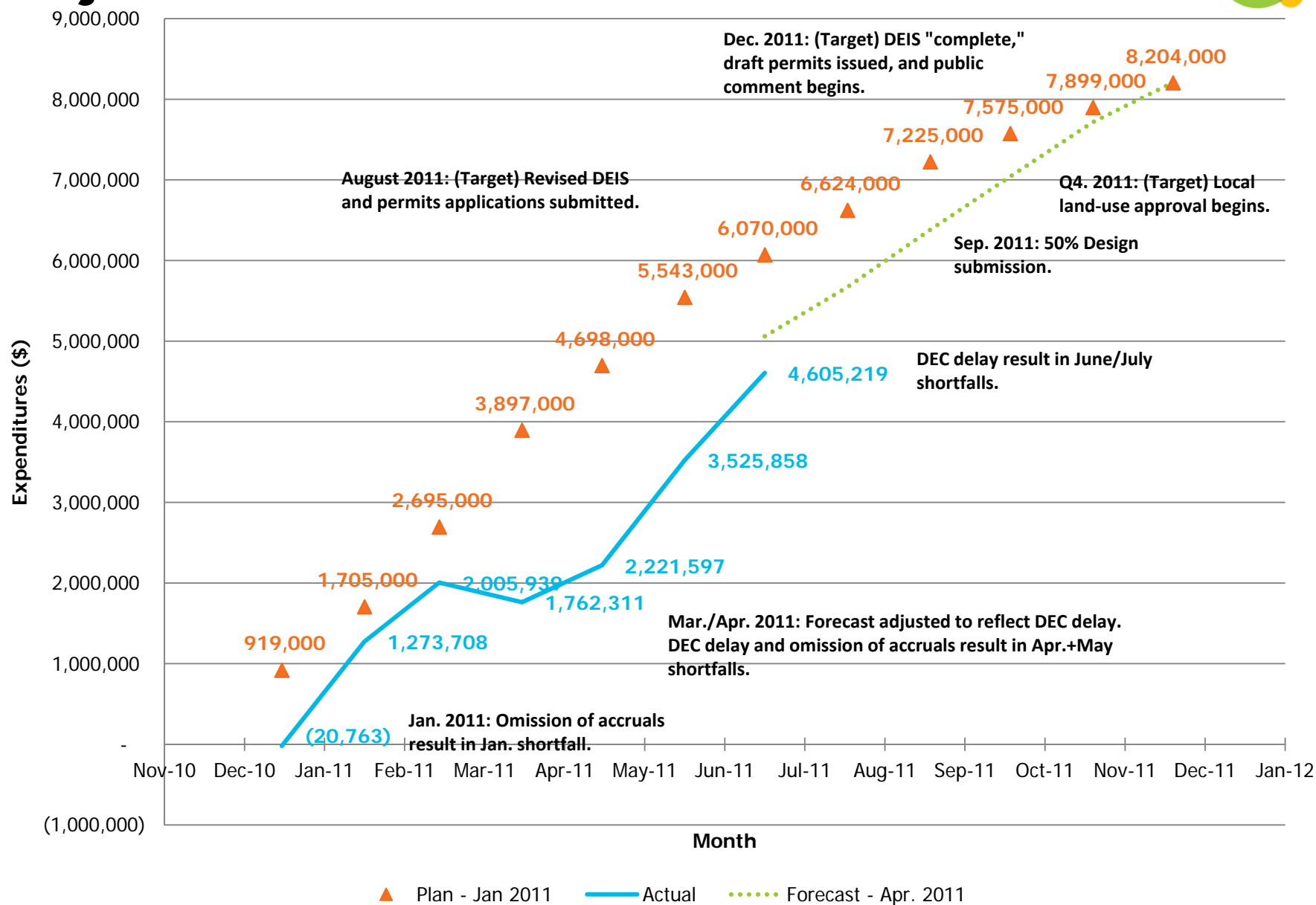
Haverstraw Water Supply Project

PROJECT BUDGET AND SCHEDULE

Project Costs



Project Costs – 2011 Plan



Project Schedule



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Submit Project Description	X									
Project Design	X									
Submit Conceptual Design		X								
Complete 50% Design				X						
Prepare DEIS and Envl. Permits				X						
Submit DEIS and Envl. Permits			X							
DEIS Agency Review										
DEIS Public Review										
Address Public Comments (FEIS)										
FEIS Issued										
Draft Envl. Permits Issued										
Obtain Envl. Permits				X						
Pilot Study										
Complete Pilot Studies				X						
Construction										
Begin Construction										
In Service										

Baseline
Current Status
Milestone



Project Schedule – EIS and Permitting



	2011												2012												2013												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
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Local Permitting/Approvals																																					
Begin Construction																																					

Baseline
Current Status
Milestone



Internal Milestones

Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2

- EIS deemed complete and draft permits issued – 6/30/2011 *
- Adjudicatory hearing determination – 8/30/2011
- Evaluate stakeholder landscape – 8/30/2011
- 50% Design – 9/30/2011
- Decision Point – 10/15/2011

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013



Haverstraw Water Supply Project

NEXT STEPS



Next Steps

- The Haverstraw Water Supply Project continue to be advanced.
- Continue with proactive Communications, Outreach and Government Affairs Plan.
- Continued Suez Environnement/Company/Division/BU support of and engagement in the Project.
- Continue to proactively manage Project costs.
- Continue to implement risk mitigation strategy from the Lookback Risk Profile.
- Leverage resources and investigate innovative solutions to facilitate regulatory approval of the Project.
- Recommended that potential cost reduction be moved to Contingency.
- October 2011 decision point be postponed until the decision point criteria are met, which is anticipated to occur in the first quarter of 2012.

United Water New York Haverstraw Water Supply Project

Steering Committee Update – August 15, 2011

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United Water New York Haverstraw Water Supply Project

Steering Committee Update – October 20, 2011

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Overview



- **Meeting Objectives**

- Brief/obtain guidance from Steering Committee on Project status.

- **Draft Environmental Impact Statement and Permits**

- **Pilot Study and Project Design**

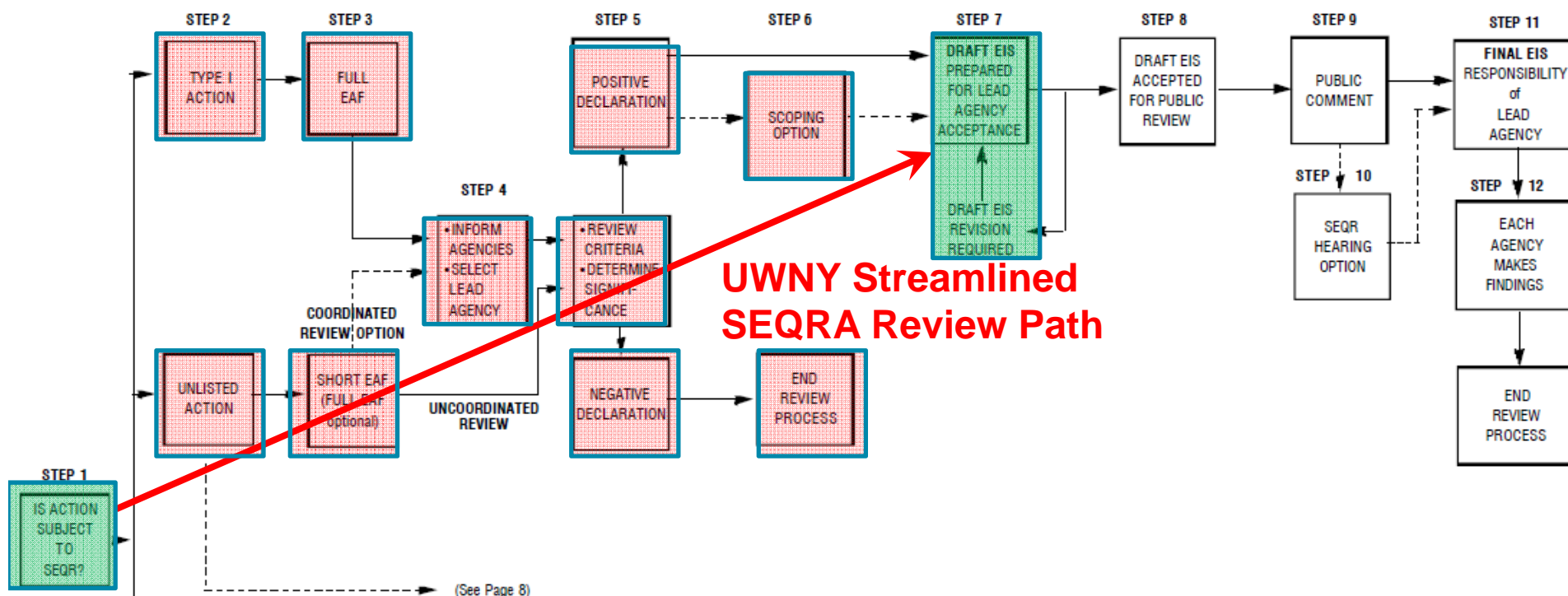
- **Stakeholder Management**

- **Schedule and Budget**

Haverstraw Water Supply Project

DRAFT ENVIRONMENTAL IMPACT STATEMENT AND PERMITS

DEIS Status



DEIS Status, (cont'd.)



○ DEIS revision

- September 30: Revised DEIS submitted to NYSDEC.
- 6 chapters do not require revision. NYSDEC staff has indicated that these are adequate for public comment.

○ NYSDEC permits

- September 29: Revised permit applications submitted to NYSDEC.

○ Regulatory Framework

- Improvement in receptiveness from the DEC.
- Indications from the DEC that the Project will be advanced through the environmental review process.
- Recent discussions with the senior members of the Governor's staff who have indicated interest in the Project and did not express any pre-dispositions against the Project.

DEIS and Permits – 6 Month Look Forward



○ **DEIS and Permit Application Review: October – December 2011**

- NYSDEC staff have commented that the DEIS should be “complete” for public comment in October 2011.
 - Project Team believes that December 2011 is a more realistic timeframe.
- NYSDEC staff have commented that the draft permits should be ready for public comment in the fall.

○ **Public Comment Period: January – March 2012**

- Includes a “legislative” or public hearing.
- Minimum 60 day comment period.
- Hydrofracking had a 93 day comment period.

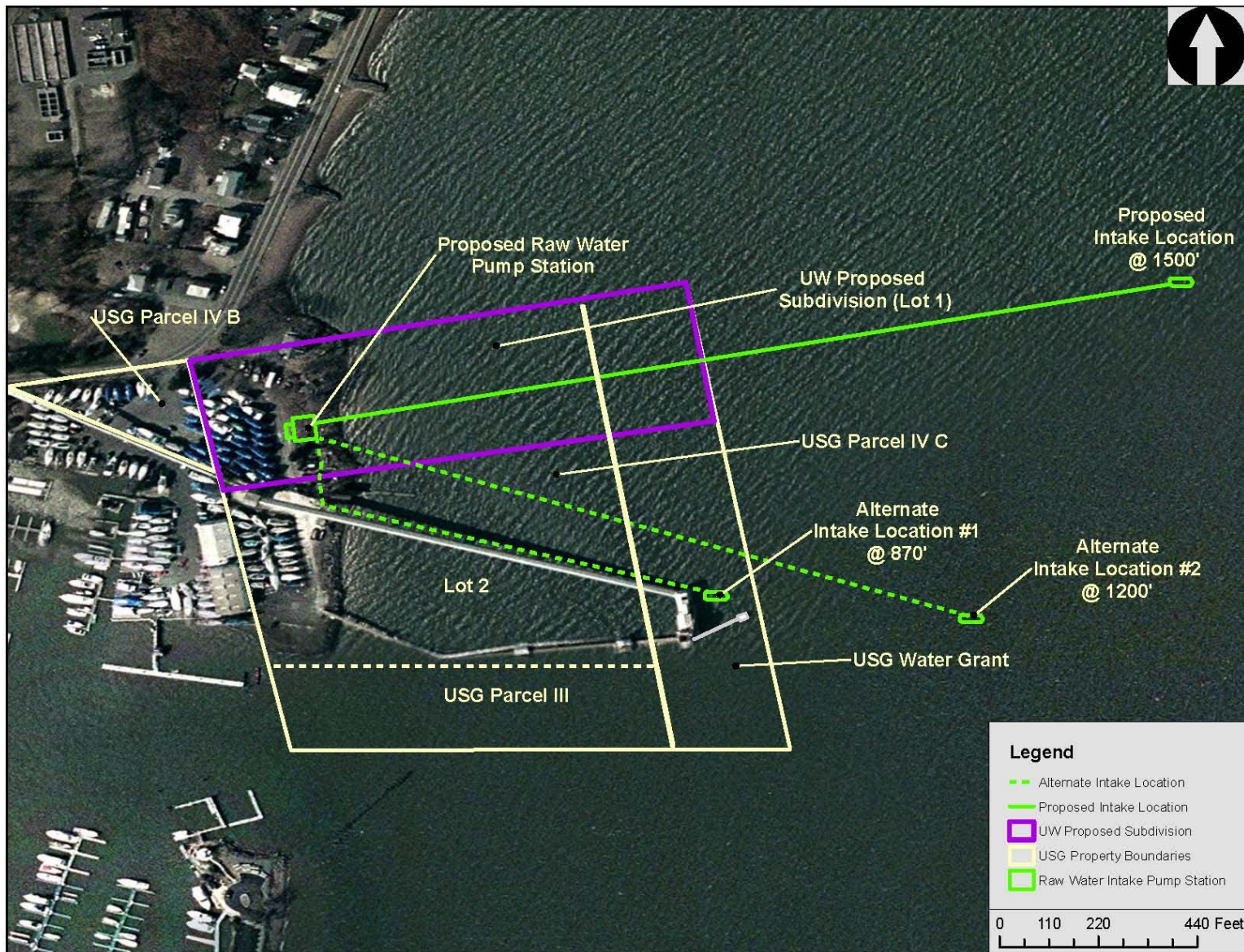
○ **Adjudication: March 2012 – June 2014**

- Optional. Would be requested by Staff, UW, or other party for adjudicating “substantive and significant” issues.
- Would begin once the legislative hearing is completed.
- Issues conference would be conducted to limit issues to be adjudicated.

Alternative Intake Location

- **NYSDOS Staff has indicted that since Haverstraw Bay is designated a Significant Habitat and Wildlife Area, any disturbance of a previously undisturbed portion of the River bottom is a significant impact.**
 - No evidence of prior disturbances has been found for the proposed intake location.
- **U. S. Gypsum ("USG") dredged channel represents an alternative intake location that has been previously disturbed.**
 - After additional review of USGs ship traffic, it has been determined that this alternative location would not be compatible.
- **The location of the Pilot Intake, however, also represents an alternative intake location that has been previously disturbed.**
 - The alternative location was not considered because USG specified that it did not want to impact shipments to its facility.

Alternative Intake Location, (cont'd.)



Alternative Intake Location, (cont'd.)

○ Alternative Intake Location Risks:

- NYSDEC or NYSDOH determine that water quality or aquatic samples taken at the proposed intake location are no longer valid.

○ Next Steps

- Discuss alternative intake location with USG prior to DEIS “completeness” and draft permit issuance.
- After DEIS “completeness” and draft permits issued, meet with agencies and governor’s office to discuss potential intake alternatives.

Haverstraw Water Supply Project

PILOT STUDY AND PROJECT DESIGN

Pilot Study Status



○ Pilot operations

- December 2010 – March 2011: DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- March – October: Data collection focused on supporting permits, establishment of the water treatment process, and optimization of water treatment process.
- October 2011 – Present: Data collection focused on supporting the design of the water treatment process.

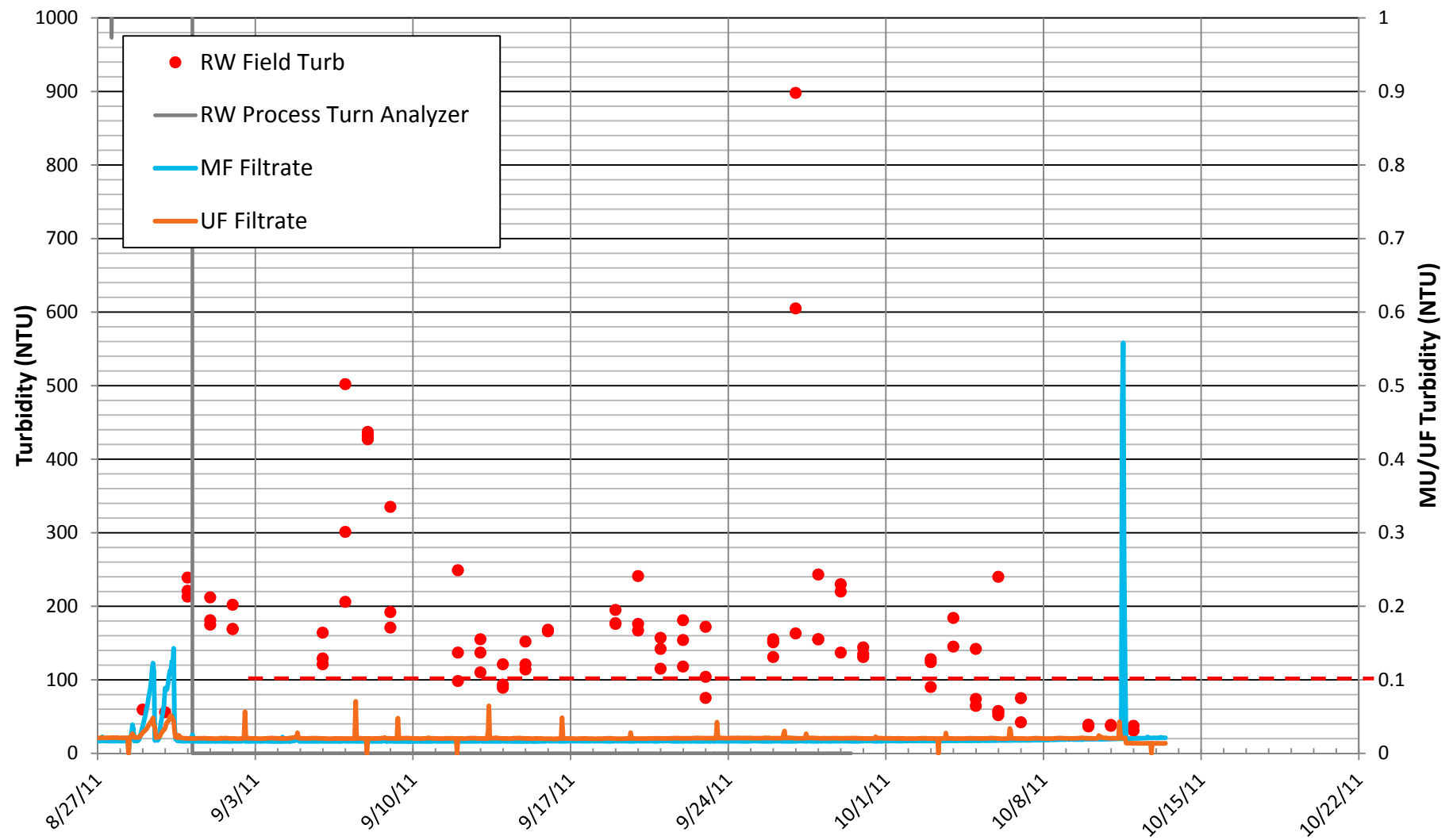
○ Pilot Study

- The Pilot has treated approximately 32 million gallons of river water.
- Approximately 7,600 laboratory samples collected and analyzed.
- Approximately 307 days of river water operations.

○ Turbidity challenge period

- Recent Hurricane Irene and Tropical Storm Lee resulted in spike in turbidity over 100 NTU, with a peak over 500 NTU.
- Ferric chloride dose was increased to 50 mg/L to reduce the settled water turbidity to below 2 NTU.
- MU / UF units operated exceptionally well, continuing to produce high quality RO feed water.

Pilot Study Status, (cont'd.)



Pilot Study Status, (cont'd.)



Hudson River before Hurricane Irene and Tropical Storm Lee



Hudson River after Hurricane Irene and Tropical Storm Lee

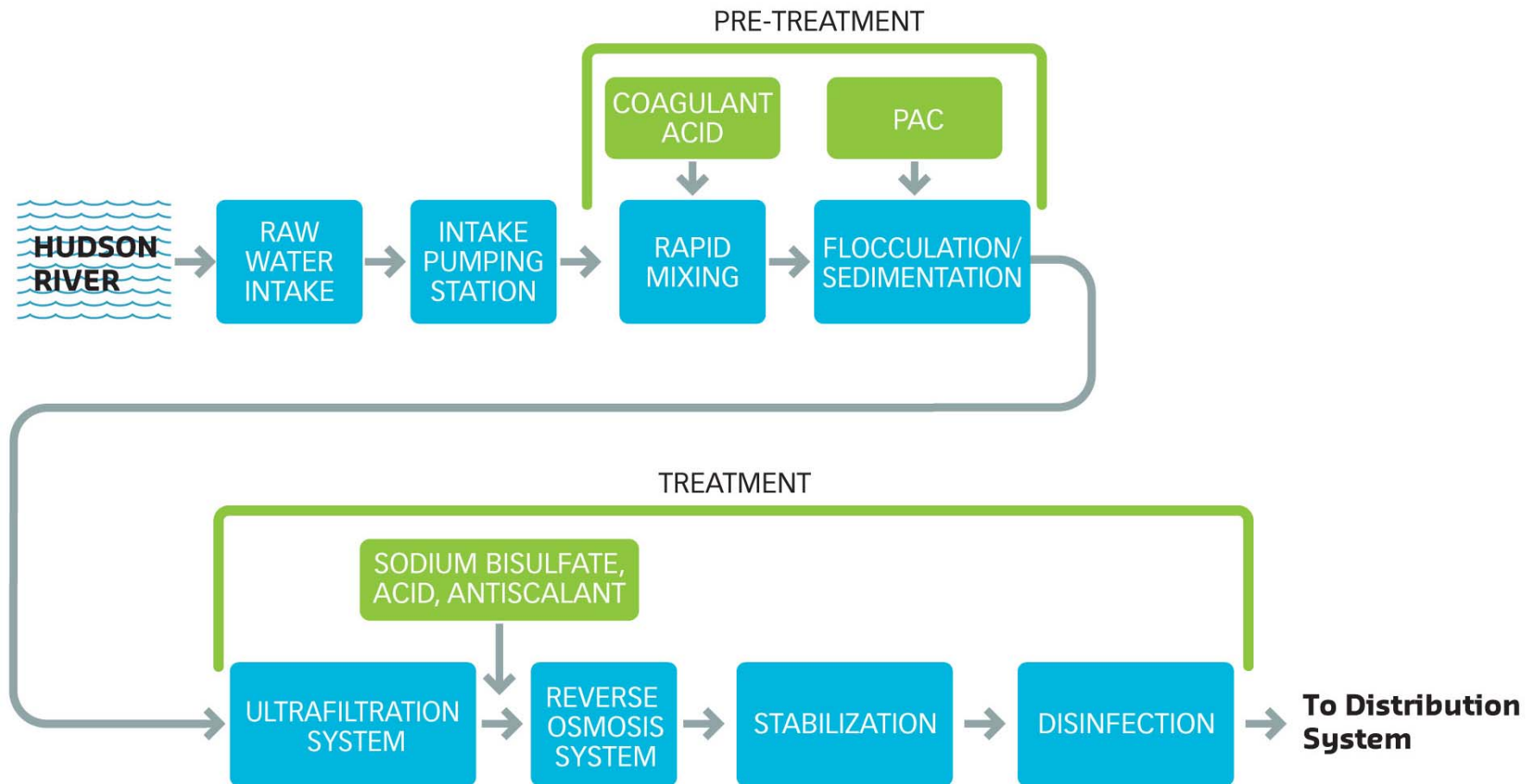


Intake Screen

- **2.0 mm slot opening Intake screen (NYSDEC and EPA “BTA”) replaced with 0.5 mm slot opening Intake screen.**
 - 0.5 mm slot opening testing done at direction of NYSDEC
 - 0.5 mm screen, according to NYSDEC, excludes 100% of aquatic life.
 - Beneficial in addressing NGO claims regarding efficacy of 2.0 mm screen.
 - CAPEX: \$2,500K higher than 2.0 mm.
 - OPEX: No impact.
- **Testing of stainless steel and copper alloy screen coupons underway to determine appropriate materials of construction to reduce fouling.**
 - Indian Point testing copper alloy screens shows alloy is effective at preventing bio-fouling.
- **Results**
 - Due to low salinity, no bio-fouling of screen.
 - 0.5 mm screen did not plug during high turbidity.
- **Direction Requested**
 - Discuss proceeding with 0.5 mm screen with NYSDEC.



Proposed Water Treatment Process



Suez Environnement – CIRSEE Review



○ Objectives of CIRSEE Review

- Comment on Pilot Study results.
- Support the Pilot Study data evaluation and water treatment process.
- Identify additional pilot testing to be conducted.

○ Key Findings

- Enhance data interpretation / evaluation.
- Conduct internal & external peer review of pilot study results.
- Evaluate the operational needs of the full-scale facility, i.e., identify the required production on a monthly basis
- Evaluate the reverse osmosis bio-fouling potential / control.
- Installation of UV disinfection may be required to protect the RO from bio-fouling.
- Demonstrate why ultrafiltration (UF) is better than microfiltration.
- Evaluate the process carbonate balance.
- Use of the Toray UF is not recommended based on prior SE experiences.

○ Additional investigations

1. Evaluate other UF systems over the next 6 months.
2. Study the remineralization options for the full-scale facility.
3. Study the blending of the finished water with distribution system water.

Pilot Study – Next Steps

○ Pilot Study monthly costs

- Rent: \$ 5,700
- Utilities: \$ 15,000
- Equipment: \$ 15,000
- Chemicals: \$ 2,000
- Lab: \$ 32,000
- Operators: \$ 32,500 (avg. 2.5 operators due to extensive sampling)
- Other: \$ 500
- **Total: \$ 105,200 (approx.)**

○ Direction requested

- Outreach benefit of continuing operating pilot study after 12-month test period with reduced lab analysis and operators.
- Conduct peer review of pilot study results (approx \$100K).
 - Panel of 10 internal and external experts
 - 2 day meeting with a final report as a deliverable.
 - Risk: May result in additional pilot tests.



Pilot Study – Next Steps, (cont'd.)

○ Direction requested, (cont'd.)

- Test additional UF units since Toray UF will not likely be part of full-scale facility.

OR

- Initiate procurement of UF unit. Procurement will:
 - Risk: NYSDOH has more strict requirements than procurement specifications.
 - Mitigation: Use pilot data and CADPH standards for procurement specifications.
 - Require bidders to identify if pilot testing of their equipment is necessary
 - Require bidders to provide an annual price escalator

Project Design – September 2011 Milestone

- **Milestone achieved: September 30, 2011**
- **Advance design to an average of 50% for all components.**
 - Process design: 50+ %
 - Hydraulic grade: 50+ %
 - Process Flow: 50+ %
 - Site Plan: 50%
 - Architectural plan: 50%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 20%
- **Next steps:**
 - Value engineering of 50% design to occur after draft permits are issued.

Haverstraw Water Supply Project

STAKEHOLDER MANAGEMENT

Stakeholder Management



- **Organized opposition to the Project continues to be active on a local and regional level.**
 - Supported by larger national and regional NGO's, such as Food and Water Watch and Hudson Riverkeeper. In line with "playbooks," allowed for local groups to attempt to rouse public concern.
 - Opposition is engaged in a mobile, grassroots campaign using newspaper op-eds, letters to the editor, organization websites, public events, door-to-door petitioning, etc.

- **Stakeholder Management Goals:**
 - Increase awareness.
 - Influencing and building consensus.
 - Promote positive public opinion and support.
 - Mitigate influence of NGO groups.
 - Facilitate the approval and successful implementation of the Project



Stakeholder Management, (cont'd.)

- **Goals achieved by playing to UWNV's strength, i.e., its ability to appeal to the entire customer base.**
 - Developed Project related materials to direct stakeholders to the Project website.
 - Updated Project website using other successful U.S. desalination project websites as a resource / model.
 - Continue Pilot Facility tours and open houses.
 - Corporate Social Responsibility: Meet with and support civic, community groups / organizations, and officials; engagement of local schools and teachers, etc.
- **Next Steps:**
 - Continue to update Project website.
 - Continue direct mail pieces, and editorials.
 - Develop e-mail list and e-mail "blasts."
 - Continue local radio interviews.
 - Continue use of Pilot Facility for outreach.
 - Continue outreach to NGOs.
 - Cable TV spots.
- **Direction Requested**
 - Conduct tracking survey at an approximate cost of \$20,000.

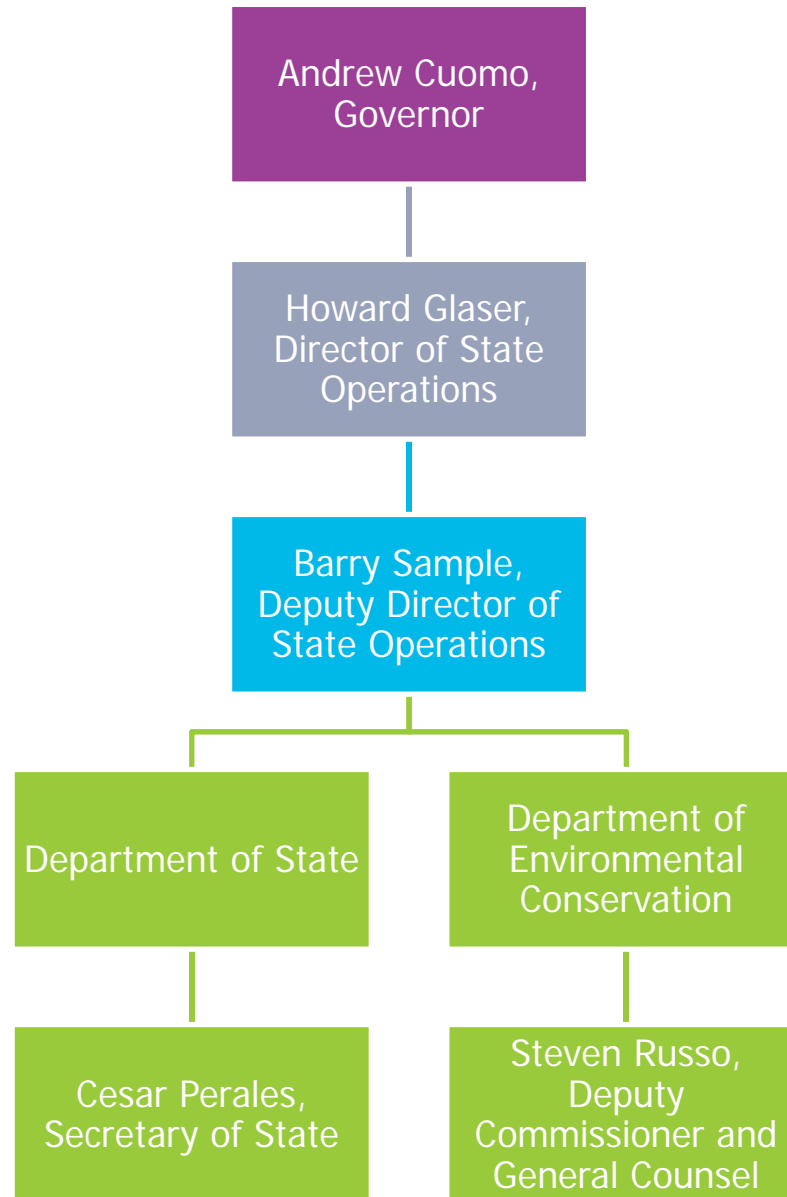
Government Affairs



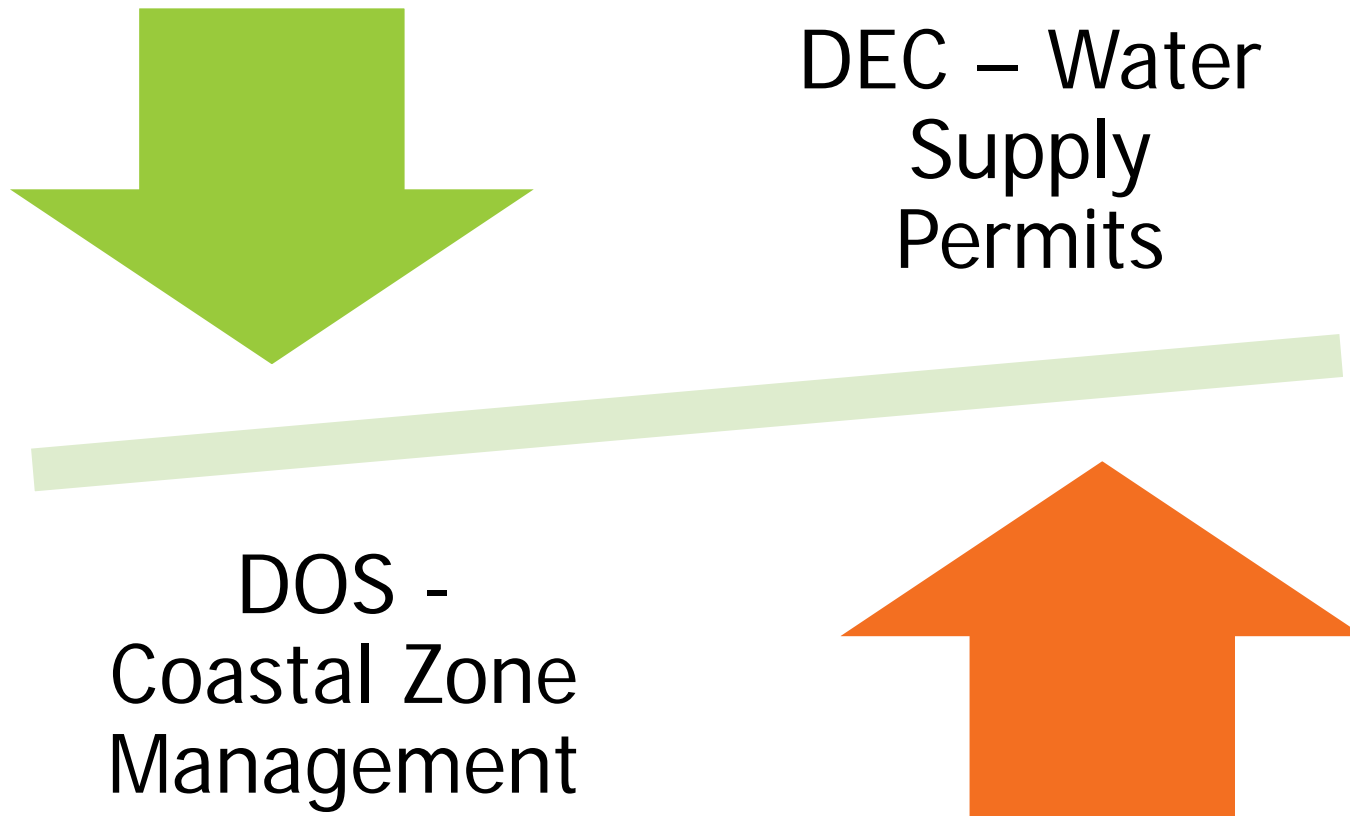
- **Government Affairs aimed at managing elected officials and local and state agencies.**
 - Increased engagement with NY Governor's office, senior political appointees, institutional civil servants at key state agencies, and local advocacy by the host Town as a major influencer of the Project.
 - Coordinating government affairs efforts with host community's government affairs consultant to leverage strengths.
 - Executive Management engagement of Key Decision Makers.

- **Recent discussions with the senior members of the Governor's Staff, have indicated interest in the Project and did not express any pre-dispositions against the Project.**
 - Governor's Staff and NYSDEC sought assurances that there will not be significant public opposition to drinking Hudson River water.

Critical Decision Makers



Public Policy Considerations

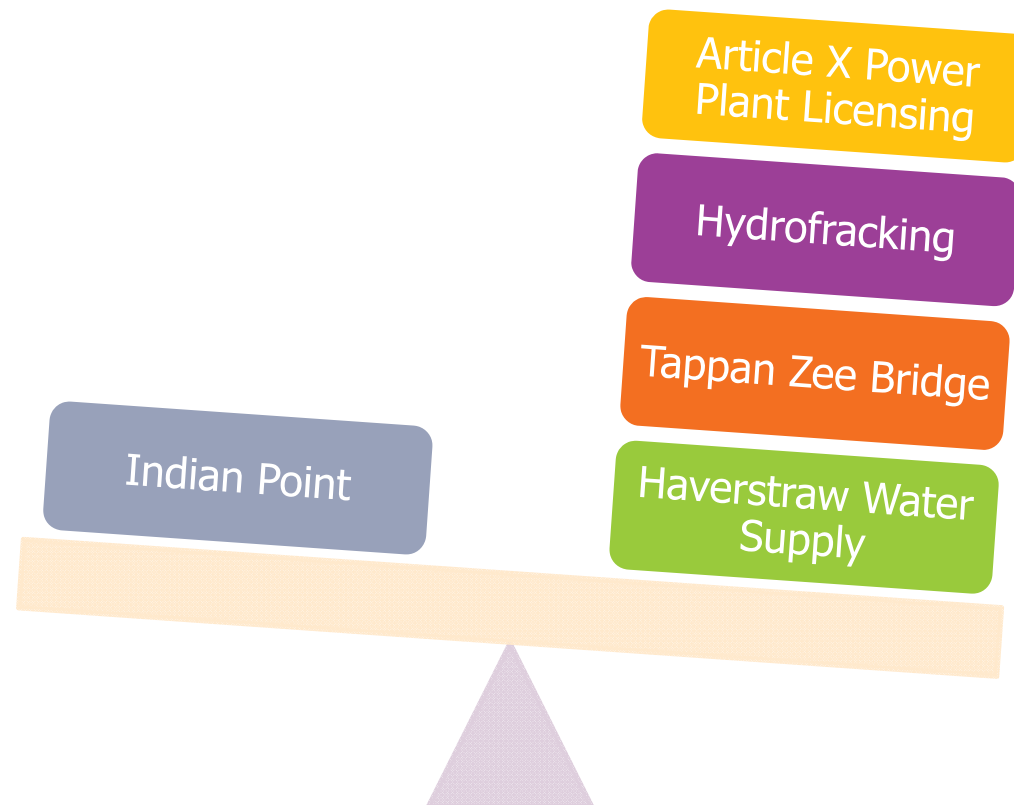


Public Policy Considerations, (cont'd.)



Favorable to
Environmental
Groups

Unfavorable to
Environmental
Groups



Who is with us?



Rockland
Economic
Development
Corporation



NGOs ?

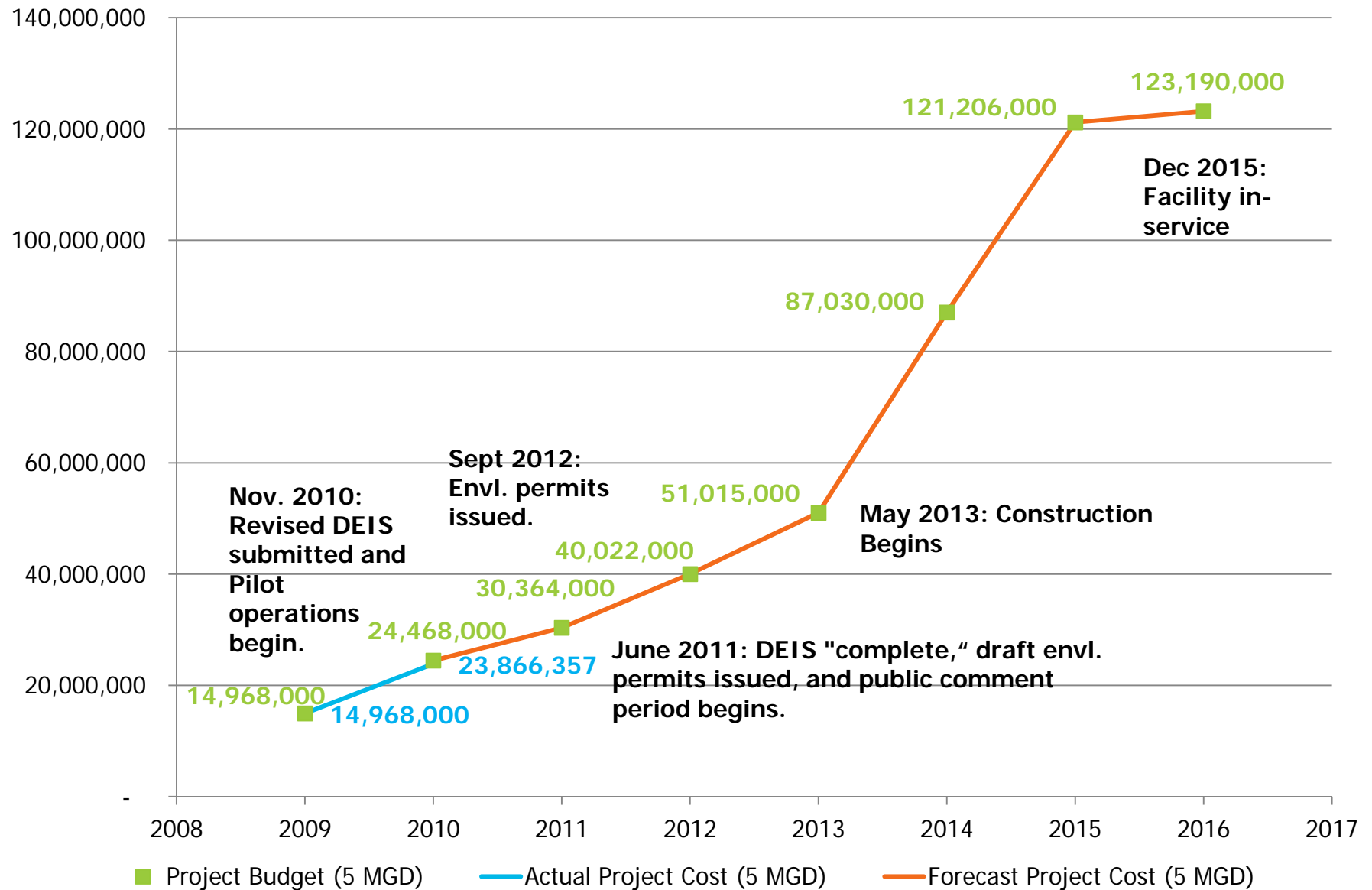
○ Next Steps

- Build a coalition of supporters.
- NY employees PAC development / government outreach.
- Continued engagement of Governor's Office Staff and Key Decision Makers.
- Executive management meeting with Senior Governor's Office Staff: November 2011

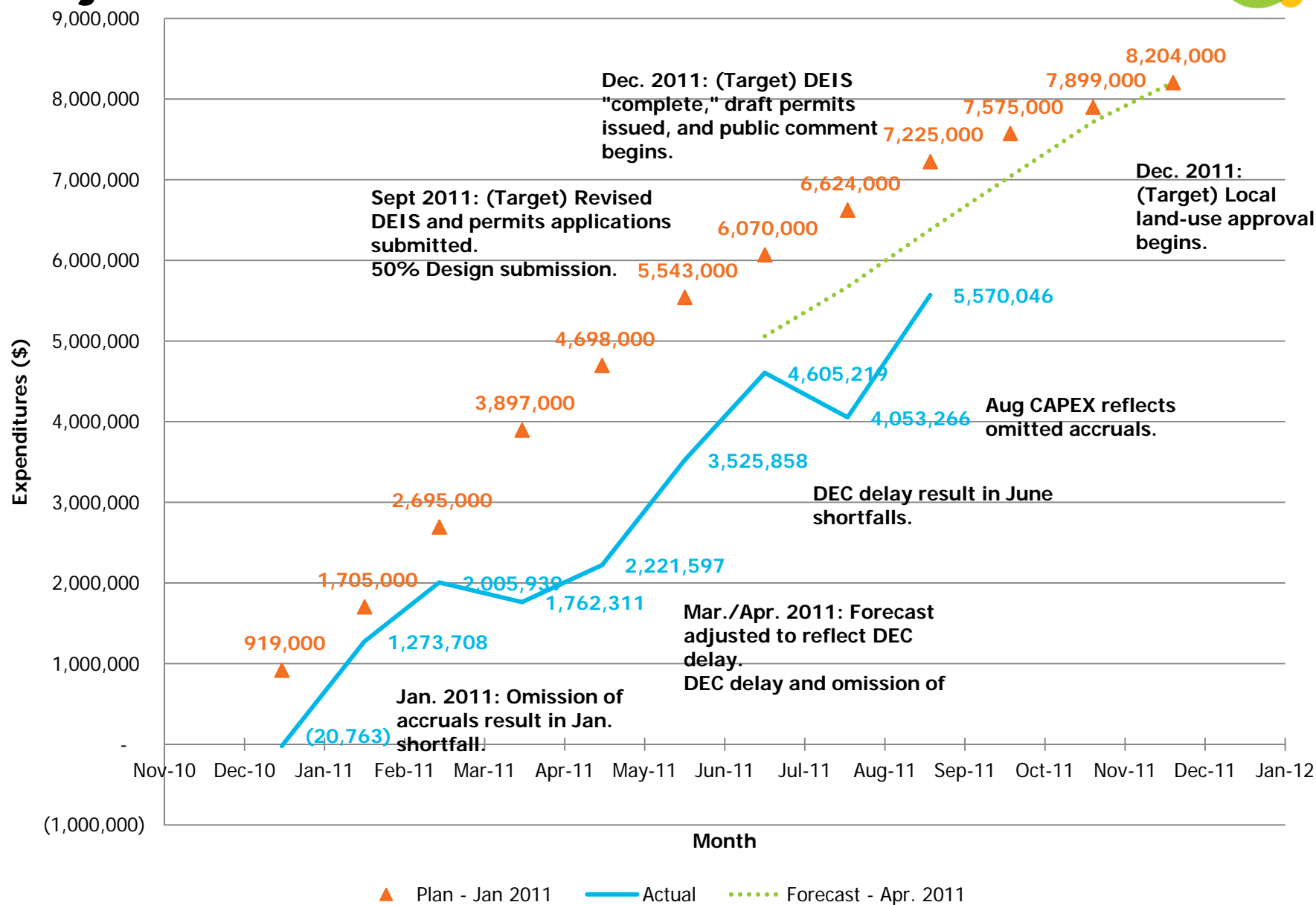
Haverstraw Water Supply Project

PROJECT BUDGET AND SCHEDULE

Project Costs



Project Costs – 2011 Plan



Project Schedule



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Submit Project Description	X									
Project Design	X									
Submit Conceptual Design	X									
Complete 50% Design				X						
Prepare DEIS and Envl. Permits				X						
Submit DEIS and Envl. Permits			X							
DEIS Agency Review			X							
DEIS Public Review			X							
Address Public Comments (FEIS)										
FEIS Issued										
Draft Envl. Permits Issued										
Obtain Envl. Permits										
Pilot Study										
Complete Pilot Studies										
Construction										
Begin Construction										
In Service										

Baseline
Current Status
Milestone



Project Schedule – EIS and Permitting



	2011												2012												2013												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
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Agency Permits Issued																																					
DOS CZMA Consist. Cert.																																					
Local Permitting/Approvals																																					
Begin Construction																																					

Baseline
Current Status
Milestone



Internal Milestones

Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2 (Revised)

- EIS deemed complete and draft permits issued – 12/31/2011 *
- Adjudicatory hearing determination – 3/31/2011 *
- Evaluate stakeholder landscape – 8/30/2011
- 50% Design – 9/30/2011
- Decision Point – April 2012 (target)

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013

United Water New York Haverstraw Water Supply Project

Steering Committee Update – October 20, 2011

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United Water New York Haverstraw Water Supply Project

Steering Committee Update – January 13, 2012

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Overview



○ Meeting Objectives

- Brief/obtain guidance from Steering Committee on Project.

○ Project Status, abbreviated (a more detailed report will be provided at the January 27th Steering Committee Meeting).

- Pilot Study
- Draft Environmental Impact Statement and Permits
- Stakeholder Management

○ Project Labor Agreement



Haverstraw Water Supply Project

PROJECT STATUS



DEIS and NYSDEC Permit Status and 6 Month Look Forward

○ DEIS revision

- September 30: Revised DEIS submitted to NYSDEC.
- December 19: NYSDEC determines DEIS is “complete” and ready for public review.
- January 18: NYSDEC target date to issue Notice of Acceptance of DEIS, beginning the public comment period.

○ NYSDEC Permits

- September 29: Revised permit applications submitted to NYSDEC.
- January 18: NYSDEC target date to issue Notice of Complete [Permit] Application and draft NYSDEC permits, beginning the public comment period.

○ Public Comment Period: January – March 2012

- Includes a “legislative” or public hearing.
- Minimum 60 day comment period, Hydrofracking had a 93 day comment period.

○ Potential Adjudication: March 2012 – June 2014

- Discretionary decision by the NYSDEC ALJ. Would be requested by Staff, UW, or other party for adjudicating “substantive and significant” issues.
- Would begin once the legislative hearing is completed.
- Issues conference would be conducted to limit issues to be adjudicated.

Pilot Study Status



○ Pilot operations

- December 2010 – March 2011: DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- March – October: Data collection focused on supporting permits, establishment of the water treatment process, and optimization of water treatment process.
- October 2011 – Present: Data collection focused on supporting the design of the water treatment process.

○ Pilot Study

- The Pilot has treated approximately 39,937 million gallons of river water.
- Approximately 9,600 laboratory samples collected and analyzed.
- Approximately 386 days of river water operations.

Stakeholder Management



○ **Organized opposition to the Project continues to be active on a local and regional level.**

- Supported by larger national and regional NGO's, such as Food and Water Watch and Hudson Riverkeeper. In line with "playbooks," allowed for local groups to attempt to rouse public concern.
- Opposition is engaged in a mobile, grassroots campaign using newspaper op-eds, letters to the editor, organization websites, public events, door-to-door petitioning, etc.
- Newspapers and other media outlets have provided little coverage of the Project, and included minimum details on the Project's cost; however, this is likely to change once the public comment period begins.

○ **Stakeholder Management Goals:**

- Increase awareness.
- Influencing and building consensus.
- Promote positive public opinion and support.
- Mitigate influence of NGO groups.
- Facilitate the approval and successful implementation of the Project

Stakeholder Management, (cont'd.)



○ **Goals achieved by playing to UWNV's strength, i.e., its ability to appeal to the entire customer base.**

- Developed Project related materials to direct stakeholders to the Project website.
- Updated Project website using other successful U.S. desalination project websites as a resource / model.
- Continue Pilot Facility tours and open houses.
- Corporate Social Responsibility: Meet with and support civic, community groups / organizations, and officials; engagement of local schools and teachers, etc.

○ **Next Steps:**

- Continue to update Project website.
- Implement social media.
- Continue direct mail pieces, and editorials.
- Develop e-mail list and e-mail "blasts."
- Underscore United Water's 100+ years of service to the residents of Rockland County.
- Continue use of Pilot Facility for outreach.
- Continue outreach to NGOs.
- Cable TV spots.

Stakeholder Management – Government Affairs



- **Government Affairs aimed at managing elected officials and local and state agencies.**
 - Increased engagement with NY Governor's office, senior political appointees, institutional civil servants at key state agencies, and local advocacy by the host Town as a major influencer of the Project.
 - Coordinating government affairs efforts with host community's government affairs consultant to leverage strengths.
 - Executive Management engagement of Key Decision Makers.

- **Recent discussions with the senior members of the Governor's Staff, have indicated continued interest in the Project and did not express any pre-dispositions against the Project.**
 - Governor's Staff and NYSDEC sought assurances that there will not be significant public opposition to drinking Hudson River water.
 - Governor's Senior Staff is prepared to meet with UW Senior Management in early February.



Haverstraw Water Supply Project

PROJECT LABOR AGREEMENT

Background

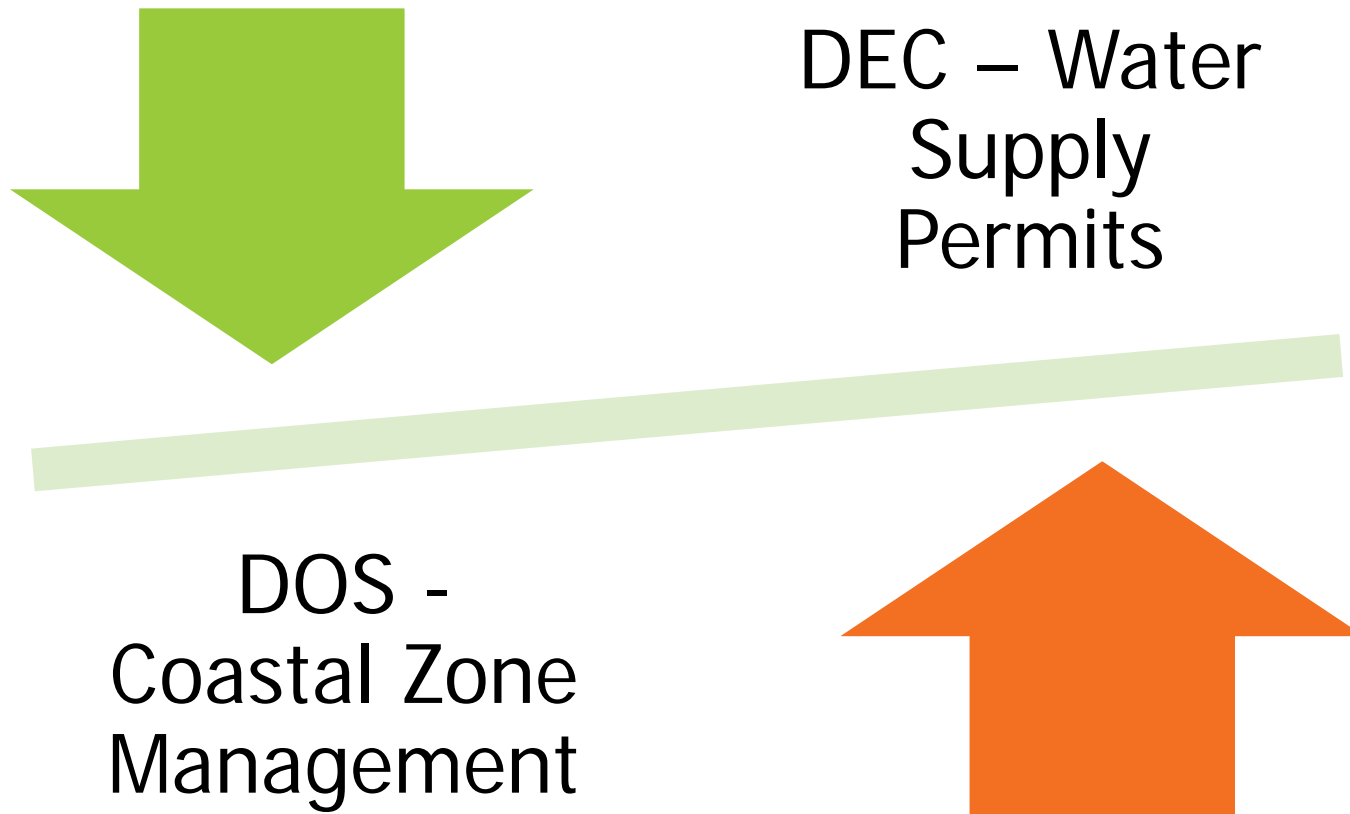


- **NYSDEC Staff has indicated its intention to issue draft permits and the DEIS for public comment in January 2012.**
- **NYSDEC has indicated that the public comment period will be 60 days, but it is expected that it will be extended.**
- **NYSDEC has asked that the Haverstraw Town Hall be reserved for public hearings in the afternoon and evening of February 28, 2012.**
 - NYSDEC has the discretion to schedule additional public hearings.
- **A coalition of local, regional, and national NGOs have actively opposed the Project. Based upon prior projects, this opposition is expected to intensify in the public comment period.**

Background, (cont'd.)

- **New York State Department of State (DOS)**
 - A key regulator for the Haverstraw Water Supply Project.
 - Through the Coastal Zone Consistency Certification process, is responsible for ensuring actions of State agencies are consistent with policies for the State's coastal areas.
 - The DOS typically begins the Coastal Zone Consistency Certification process once a final EIS is issued.
- **DOS has a reputation of being staffed with environmental activists, and has been hostile towards the Project.**
- **Coastal Zone Program grants significant discretion to the DOS and potentially could stop the Project.**
- **The Governor's Office is arbitrating an internal dispute between the DOS (who wants to stop the Project) and the DEC (who believe the Project is worthy of approval).**

Public Policy Considerations

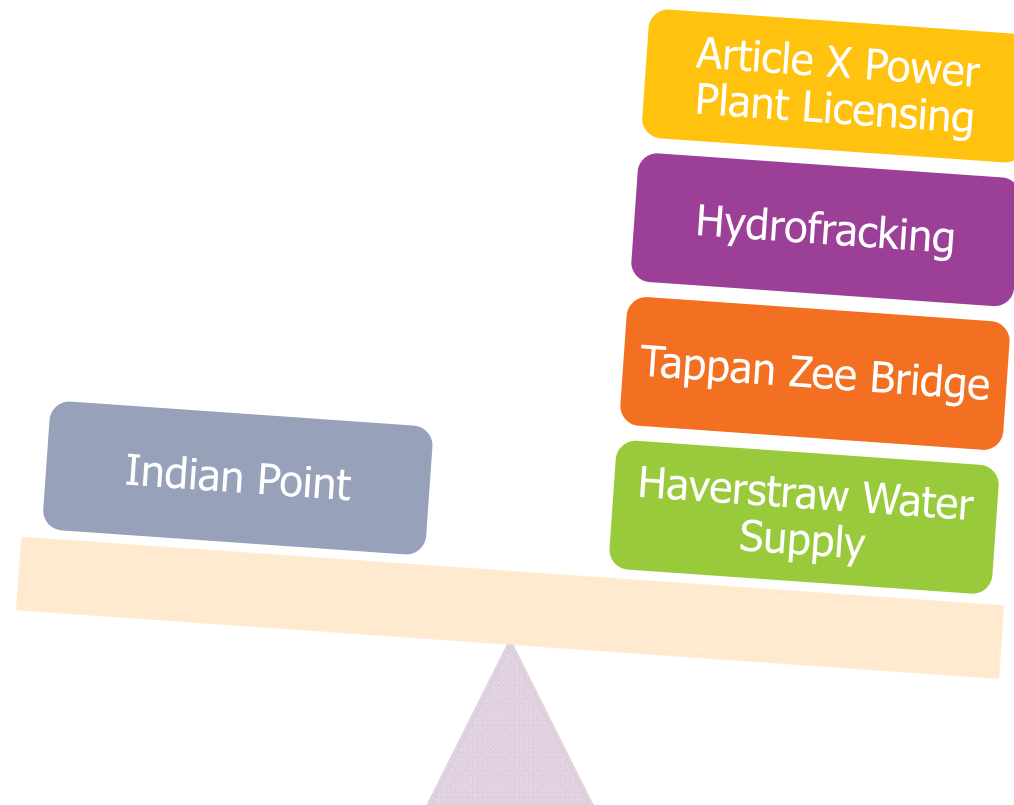


Public Policy Considerations, (cont'd.)



Favorable to
Environmental
Groups

Unfavorable to
Environmental
Groups



Who is with us?



○ Established supporters



- Need support of groups with significant statewide influence to bolster the support of the Governor.
- Governor relies upon the traditional Democrat base of support
 - Labor, environmental groups, and liberal New York City voters.
 - Has taken a hard line with public sector unions, but has been particularly supportive of the building and trades unions.

Building and Trades Unions

- "Cuomo's attitude toward organized labor has been characterized, above all, by a ruthless pragmatism, tailoring his belligerence level to each situation, and to the political power of each of his counterparties."
- *Capital*, February 28, 2011 (<http://tinyurl.com/HWSP2012>)
- The active support of organized labor at the local, and particularly at the state, level has the potential to be a game changer for the Project.

Potential Project Labor Agreement

- **Project Labor Agreements ("PLAs") are single-site craft labor agreements used in the construction industry to provide reliable, cost-effective project staffing for capital construction projects.**
- **An economic study is usually advisable for public sector projects to evaluate whether the PLA will facilitate economical project delivery and serve the best interests of the project owner.**
 - While there may be an opportunity to negotiate alternative wage rates with the unions, CDM and J. Fletcher Creamer estimate that a PLA could increase the Project labor cost by approx. \$6,500K (25%) due a larger workforce and reduction in productivity that often comes with PLAs.
- **While PLAs do not necessarily restrict bidding to union contractors, they do generally require that all bidders hire workers through union hiring halls, non-union workers pay dues for the length of the project, union rules on work conditions and dispute resolution are followed, and union wage, benefit, seniority, apprenticeship and other union rules are complied with. The union, in turn, promises labor peace throughout term of the contract.**
- **The active support of organized labor will underscore the economic development benefits of the Project and will help dampen cost arguments.**

Potential Project Labor Agreement, (cont'd.)



PLA proponents maintain that PLAs	PLA critics maintain that PLAs
Promote a planned approach to labor relations	Discourage non-union contractors from bidding on jobs that have PLAs
Allow contractors to more accurately predict labor costs, schedule production timetables and reduce costly disruptions	Raise the cost of construction due to less competition and fewer bidders trying to under-bid each other for the contract which, in turn, results in an overall higher cost for the project
Encourage efficiency and productivity by keeping projects on time and on budget	Violate state competitive bidding laws and are in essence “union-only” agreements, despite case law holding otherwise
Help assure the use of qualified skill labor	The use of a PLA on an isolated project may set public expectations to use PLAs in the future
Achieve direct cost savings	
Achieve indirect cost savings	

A more detailed discussion regarding PLAs can be found in the Appendix.



Direction Requested

○ Timeframe

- The NYSDEC has scheduled the public hearing for February 28, 2012.
- Strong support from the building and trades at the public hearing and in Albany could set the tone for the remainder of the regulatory approval process.
- As such, if a PLA is going to be pursued, time is of the essence.

○ If a PLA is desirable:

- Proceed with conducting a PLA feasibility study.
- Discuss potential for a PLA with NY Building and Trades Council and IBEW, Local 363 if optimal and critical for the project's success
 - While IBEW Local 363 does not afford great political leverage in Albany and NYC, their cooperation will be valuable in Rockland County's support of the project as well as enhanced labor relations with United Water

○ Establish Roles / Responsibilities

- Who will take the lead and which Team members will be supporting?



Haverstraw Water Supply Project

PROJECT LABOR AGREEMENT APPENDIX

Potential Project Labor Agreement, (cont'd.)



- Under the terms of the PLA, all site contractors and subcontractors are bound to certain uniform terms and conditions of employment for all craft personnel hired for the project.
- PLAs are authorized by federal statute (National Labor Relations Act) for use in the private sector and by state law (Thruway Authority decision) for use in the public sector.
- There is uncertainty as to whether a PLA used on New York construction project undertaken by a private utility company for the benefit of the public would be analyzed under the National Labor Relations Act, similar to a private sector PLA, or under the Thruway Authority standards, similar to a public sector PLA.
- New York courts have held that PLAs are permissible on public works projects if the public authority can establish that the PLA advances the central purposes of the New York competitive bidding statutes governing public entities (i.e. protection of the public by obtaining the best work and the lowest price; prevention of favoritism, fraud and corruption in the awarding of public contract).

Potential Project Labor Agreement, (cont'd.)



- New York courts have also held that a public authority's decision to adopt a PLA must be supported by a consultants feasibility or due diligence study which takes into account a) cost savings b) the nature of the project; c) the construction timetable; and d) history of labor unrest.
- New York courts are silent as to whether standards applicable to the use of a PLA on a publicly financed construction project are similarly applicable to PLAs utilized on construction projects of privately owned utility companies.
- However, the public nature of utilities and the discretion of the New York Public Service Commission to demand public bidding on contracts for the construction of plants, works and other systems exceeding \$100,000 may trigger the application of such standards.
- All NY State agencies are required to evaluate the use of PLAs on capital projects. Likewise, PLAs are used extensively in Rockland County and on almost every large municipal capital project.

United Water New York Haverstraw Water Supply Project

Steering Committee Update – January 13, 2012

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Overview

- **Meeting Objectives**
 - Brief/obtain guidance from Steering Committee on Project.
- **Draft EIS and NYSDEC Permit Status**
- **Pilot Study**
- **Design and Engineering**
- **Stakeholder Management**
- **Budget and Schedule**

Haverstraw Water Supply Project

DRAFT EIS AND PERMITS STATUS

Draft EIS and NYSDEC Permit Status



○ Draft EIS

- September 30, 2008: DEIS submitted to NYSDEC.
- September 30: Revised DEIS submitted to NYSDEC.
- December 19: NYSDEC determines DEIS is “complete” and ready for public review.
- January 13: NYSDEC date to issue Notice of Complete DEIS and Acceptance of DEIS.
- January 18: Public comment period begins.

○ NYSDEC Permits

- September 30, 2008: Permit applications submitted to NYSDEC.
- September 29: Revised permit applications submitted to NYSDEC.
- January 13: NYSDEC date to issue Notice of Complete Permit Application and issue draft permits.
- January 18: Public comment period begins.

Key NYSDEC Permit Conditions



○ State Pollution Discharge Elimination System

1. “The permittee shall develop, maintain, and implement a Best Management Practices (BMP) plan to prevent releases of significant amounts of pollutants to the waters of the State through plant site runoff; spillage and leaks; sludge or waste disposal; and stormwater discharges including, but not limited to, drainage from raw material storage.”
 - NYSDEC regulations allow requiring BMP, 6 NYCRR Part 750-1.14 (f):
 - “Permits may include and the permittee shall comply with such other terms, provisions, requirements or conditions as may be necessary to meet the requirements of ECL Article 17 and 40 CFR 122 (see section 750-1.24 of this Part) including but not limited to requirements to implement best management practices plans, pollution prevention plans, studies of the effects of the permitted discharge on the receiving water, studies of the treatability of the permitted discharge and studies of the discharge to determine usable analytical procedures and analytical capabilities and pollutant minimization programs as described in 40 CFR Part 132 (see section 750-1.24), except that the department may require a pollutant minimization program where the pollutant to be minimized is impairing or precluding the best use of the receiving water.” (Emphasis supplied)
2. “The permittee shall conduct quarterly sampling of the RO concentrate discharge during the 1st year of operation.”
 - A sampling plan shall be developed prior to start-up and submitted to NYSDEC for review.

Key NYSDEC Permit Conditions, (cont'd.)



Proposed Water Supply Permit Special Condition

8. Water Supply System Management

Consistent with Section 2.5.5 in the Environmental Impact Statement associated with this water withdrawal permit:

With the introduction of the new water source, the total supply of the United Water system will be increased. United Water shall continue to operate Lake Deforest in accordance with its water withdrawal permit for that reservoir, and such that it meets water demands by maximizing its use to the extent allowed by its permit, capacity and safe yield. The Ramapo Valley Well Field and Letchworth Reservoirs will likewise be operated subject to the respective water withdrawal permits.

The addition of the steady supply of Hudson River water by means of this water withdrawal permit concerning the desalinization plant at Haverstraw will allow United Water to reliably meet summer demand and, when demand lessens, to rest its supply wells, which can become overdrawn through constant use.

Consistent with the above-listed obligations and conditions, and pursuant to ECL § 15-1503.2, it is a Water Supply Condition of this Permit that the Haverstraw desalinization plant may not produce potable water at rates of more than; 2 mgd during Phase 1; 4 mgd during phase 2; and 6 mgd for phase 3 if Deforest Reservoir is either:

(a) releasing more than 9.75 mgd in accordance with existing Water Supply Approval No. 2189 - 6th modification; or

(b) spilling.

Limitations (a) and (b) shall not apply if the Deforest drinking water treatment plant is already operating at a normal, seasonal production rate or water quality conditions limit the amount of water that can be removed from Deforest for treatment.

Limitations shall not apply if United Water undertakes emergency or maintenance activities or permitted improvements at any other United Water New York supply source.

United Water shall provide the Department with written notice within 24 hours of commencement of any activities that would prevent compliance with a and b referenced above.

Draft Water Supply Permit Special Condition

18. Water Supply System Management With the addition of the Hudson River source, the total supply of the United Water New York system will be increased. The permittee shall continue to use Lake Deforest to the maximum extent practicable considering factors such as its existing permit, treatment capacity, safe yield, emergency and maintenance activities, authorized improvements at any other United Water New York water source, and water quality conditions which limit the amount of water that can be removed from Lake DeForest for treatment to meet Rockland County water demands. An annual report that details the preceding year's monthly water system demands and the usage of all of the permittee's approved sources of supply in a format approved by the Department (similar to Table 1-4 of the Haverstraw Water Supply Project Draft Environmental Impact Statement) shall be submitted to the Department annually by March 1st of the following calendar year for each year the permit is in effect.

Draft EIS and NYSDEC Permit 6 Month Look Forward

○ Public Comment Period: January – March 2012

- Includes a “legislative” or public hearing.
- 60 day comment period, will be extended to 90 days at the urging of Rockland NYS Senator and two members of the Assembly.
- Tappan Zee Bridge DEIS comment period is 60 days, and Hydrofracking DGEIS comment period was approximately 120 days.
- Comment period may be further extended.

Regardless of anyone’s support for or opposition to this project, it seems only fair to provide all interested parties sufficient time to read and respond to the DEIS.

We therefore conclude that it is in the public interest to extend the comment period for at least two additional months, resulting in a four-month comment period though it would benefit the Rockland Community even more to be given a full six months for response to the DEIS regarding this pivotal project.


Thank you for your consideration.



David Carlucci
NYS Senator, 38th District



Ellen C. Jaffee
NYS Assemblymember, 95th District



Kenneth P. Zebrowski
NYS Assemblymember, 94th District



Draft EIS and NYSDEC Permit 6 Month Look Forward, (cont'd.)

○ Public Comment Period: (cont'd.)

- NYSDEC has received several requests to extend the comment period.
 - “We are requesting a six month public comment period, in order to give experts and citizens adequate time to review the completed application. Given the complexity of this project, it is not possible to do the independent analysis of the data needed for a proper assessment of this application in an abbreviated period of time.” (Emphasis supplied)
 - Rockland Coalition for Sustainable Water, January 17, 2012
 - “We are writing to request that DEC direct United Water to commit funding for municipalities and citizen groups. ... As the Haverstraw desalination plant is a project of regional significance and considerable complexity, it would be wise that these parties have sufficient funds to hire independent experts to analyze the proposal...” (Emphasis supplied)
 - Rockland Coalition for Sustainable Water, January 17, 2012

○ Potential Adjudication: March 2012 – June 2014

- Discretionary decision by the NYSDEC ALJ. Would be requested by Staff, UW, or other party for adjudicating “substantive and significant” issues.
- Adjudication will have significant negative impact on schedule and budget.
- Would begin once the legislative hearing is completed, and public comment period is closed.
- Issues conference would be conducted to identify issues to be adjudicated.



Haverstraw Water Supply Project

PILOT STUDY

Pilot Study Status



○ Pilot operations

- December 2010 – March 2011: DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- March – October: Data collection focused on supporting permits, establishment of the water treatment process, and optimization of water treatment process.
- October 2011 – Present: Data collection focused on supporting the design of the water treatment process.
- The Pilot was shutdown during the holidays, resumed operations on January 3, then shutdown on January 4 until the Boron matter was resolved. Limited operations resumed on January 16.

○ Pilot Study through December 2011:

- The Pilot has treated approximately 39,937 million gallons of river water.
- Approximately 9,600 laboratory samples collected and analyzed.
- Approximately 386 days of river water operations.



Haverstraw Joint Regional Sewer Board Industrial Discharge Permit

- **Haverstraw Joint Regional Sewer Board (“JRSB”) Industrial Discharge Permit (“IDP”)**
 - IDPs are used to protect the wastewater treatment plant (“WWTP”) process.
 - In NY Industrial Discharge Programs is regulated by the USEPA (not the NYSDEC), but are administered by the WWTP.
 - JRSB IDP Boron limit: 0.23 ppm.
 - JRSB has not been able to produce documentation supporting the establishment of this limit.
 - Pilot does not generate or treat Boron, i.e., the same amount of Boron that enters from the river is sent to the JRSB.
 - Hudson River Boron levels during 2007 River Sampling Period: 0.052 – 1.3 ppm.
 - Boron levels in the Raw (River) Water ranged from 0.017 to 0.338 ppm from December 2010 to August 2011.



Haverstraw Joint Regional Sewer Board Industrial Discharge Permit, (cont'd.)

- **Haverstraw Joint Regional Sewer Board ("JRSB") Industrial Discharge Permit ("IDP"), (cont'd.)**
 - Dec 2010, Jan 2011 and August 2011 discharges to JRSB exceeded the IDP limit for Boron, 0.306 ppm, 0.243 ppm, and 0.465 ppm, respectively.
 - JRSB Executive Director notified pursuant to IDP. Executive Director indicated that other industrial dischargers exceed Boron limit including the Haverstraw Landfill and Bowline Power Plant.
 - December 14, 2011, the JRSB sends a Notice of Violation for August 2011 discharge.
 - The JRSB has submitted a request to the EPA to increase its IDP limit to above 1 ppm.
 - Stony Point WWTP and Orangeburg WWTP both have an IDP limit for Boron of 1 ppm.
 - For discussion:
 - Internal discussions have been held regarding reaching out to the EPA to accelerate the JRSBs request.
 - Rough correlation of salinity to Boron, and Hach Boron field test kit with a minimum detection of 0.2 ppm.
 - Operation of the Pilot.

Pilot Study Continued Operations

- **Pilot Study goals/objectives, submitted to NYSDEC and NYS Department of Health, will be achieved with:**
 - Continued operation during a cold water period using ferric chloride as the coagulant; and
 - (Optional) Continued operation during a cold water high salinity event (in the river or manufactured).
- **Additional Pilot Studies are currently being evaluated, but will not likely have an effect on progressing the Project design.**
 - These additional studies may further optimize the Project design or operations.
- **After achieving the above goals/objectives, the Pilot Study may be operated as a “demonstration.”**
 - This mode of operation may require less sampling and operator involvement.

Pilot Study Continued Operations, (cont'd.)



Parameters	Quarter	Month	Week	Other
VOCs	X		X	
SVOCs	X		X	
Pesticides	X		X	
PCBs	X		X	
Metals		X	X	
Radionuclides	X		X	
EDCs/PPCPs		X		
Pathogens				2x/ month
Process Performance		X X	X	
Whole Effluent Toxicity				X

Proposed sampling protocol.

Current sampling for the DEIS and permit applications.

- Note: Any change in the sampling regime will likely bring criticism from opponents.

Pilot Study Continued Operations, (cont'd.)



Item	Current Average Monthly Cost (\$)	Proposed Average Monthly Cost (\$) *
Rent	5,700	5,895 **
Utilities	15,000	15,000
Equipment	15,000	10,000
Chemicals	2,000	2,000
Lab	32,000	10,000
Operators	32,500 (avg. 2.5 operators)	20,000 (avg. 1.5 operators)
Other	500	500
Total (approx.)	102,500	63,200

* Beginning in March / April 2012.

** 5% rent increase effective in 2012.

Pilot Study Continued Operations, (cont'd.)



○ NYSDEC cited the following in its January 26, 2009 determination that the Pilot Study was a Type 2 SEQRA Action:

- the proposed pilot desalination plant would be constructed and operated only to gather data in support of UWNYS's applications for the proposed LTWSP, including the corresponding draft environmental impact statement (EIS);
- pursuant to 6 NYCRR 617.3(g)(1), DEC finds that a separate regulatory review of the permit application for the pilot desalination plant, and the incorporation of data resulting from operation of that pilot desalination plant into the draft EIS and its public review process, will result in a review of the LTWSP, as a whole, which is clearly no less protective of the environment than if the application for the proposed pilot desalination plant were to be reviewed in conjunction with the applications for the LTWSP; and
- DEC's authorization of the pilot desalination plant does not commit the DEC to commence, engage in or approve the proposed LTWSP .

Pilot Study Continued Operations - Direction Requested

Continue Pilot Operations

Continue current sampling protocol; or

Revise sampling protocol as detailed / Develop communications plan to mitigate potential public / opponents negative response; or

Cease Pilot Operations

Request relief from obligation from NYSDEC.

Develop communications plan to mitigate potential public / opponents negative response.



Haverstraw Water Supply Project

DESIGN/ENGINEERING

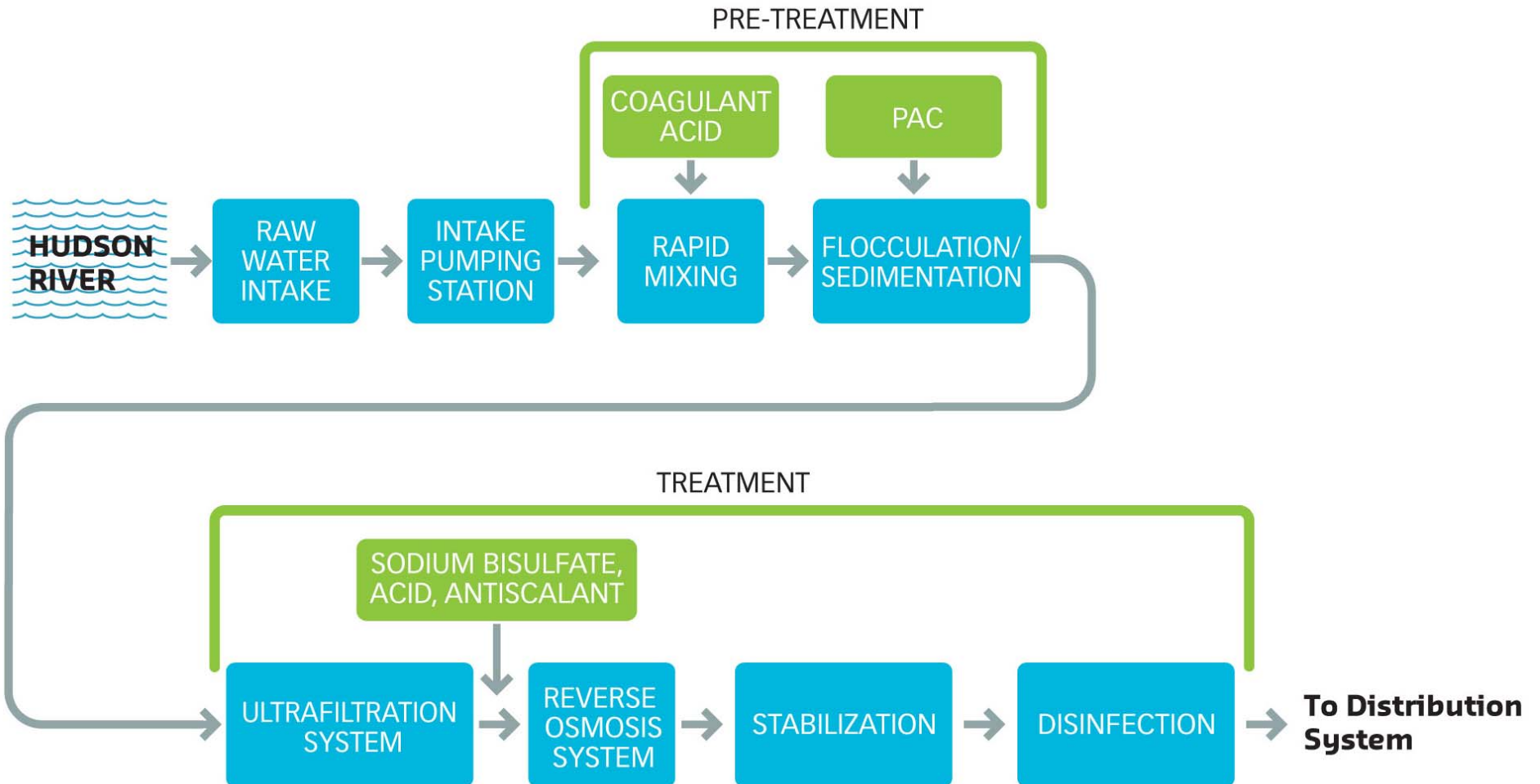
Design and Engineering Status

- **Project design is estimated to be above 50% (an average of all components), approximately:**
 - Process design: 70%
 - Hydraulic grade: 70%
 - Process Flow: 70%
 - Site Plan: 60%
 - Architectural plan: 50%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 30%
- **Since September 2011 the engineering has been advanced to support the issuance of the NYSDECs draft permits.**
 - Design is sufficiently advanced to begin local land use process. The local land use process, however, will likely result in additional design advancement.
- **Local land use process is likely to take 9 – 15 months, after which, a building permit application can be submitted.**
 - PSC Milestone: Begin Construction May 31, 2013.

Design and Engineering Status, (cont'd.)



50% Design Water Treatment Process



Design and Engineering

- Design and Engineering awarded to CDM in 2009.
- Design and Engineering Request for Proposals (“RFP”) required costs to advance the Project design to 50%.
- Design and Engineering RFP included a task (“Task 6”) to advance the design from 50% to obtain a building permit (i.e., 100%), but did not request costs for this task. The cost for Task 6 would be established using the rates in the agreement.
- In lieu of progressing the Design and Engineering with CDM, a RFP can be developed to retain an alternate firm.
 - Estimated timeframe: 3 – 6 months to retain an alternate firm.
 - Risk: The DEIS and permit applications were prepared based on CDMs design. If the DEIS and draft permits are adjudicated, testimony of the Design and Engineering firm will be required. An alternate firm may not be willing to or may not be able to provide comprehensive testimony.
- **Direction requested:**
 - To progress Design and Engineering with CDM through the local land use process.

Design and Engineering Review

- **Potentially conduct a two part review of the design:**
 1. Process Peer Review
 2. Design Review / Value Engineering

- **Participants: 5 - 7 external, plus Project Team**
 - Academia: focus on the water treatment process
 - Consultant: focus on water treatment process and water treatment process design
 - Consultant: focus on overall design and construction
 - State regulatory from CA or MA
 - Possibly EPA official
 - Utility (e.g., Tampa Bay, Taunton, MA or Swansea, MA)
 - SE / CIRSEE

Design and Engineering Review, (cont'd.)

○ Duration / Schedule

- 2 days for preparation to review documents
- 2 days for workshop, i.e., 1 day for process
- 1 day for travel
- Tentatively schedule for mid-February

○ Cost

- | | |
|---|----------|
| – Time: 7 people for 5 days each @ approximately \$150/hour | \$42,000 |
| – Expenses: Approximately \$1,500 each | \$10,500 |
| – Total: Approximately | \$50,000 |

○ Direction requested:

- To conduct a design review.

Design and Engineering 3 Month Look Forward



February 2012

- Process Peer Review and Value Engineering (if approved by Steering Committee).
- Membrane Filter Procurement.

March 2012

- Revise design as a result of Peer Review and Value Engineering.
- Revise design as a result of Membrane Filter Procurement (if approved by Steering Committee).
- Begin Local Land Use process (9 – 15 months).

April 2012

- Continue Local Land Use Process

○ **Note: Changes in the Design and Engineering firm will impact this schedule.**

Haverstraw Water Supply Project

STAKEHOLDER MANAGEMENT

Stakeholder Management



- **Organized opposition to the Project continues to be active on a local and regional level.**
 - Supported by larger national and regional NGO's, such as Food and Water Watch and Hudson Riverkeeper. In line with "playbooks," allowed for local groups to attempt to rouse public concern.
 - Opposition is engaged in a mobile, grassroots campaign using newspaper op-eds, letters to the editor, organization websites, public events, door-to-door petitioning, etc.
 - Newspapers and other media outlets have provided little recent coverage of the Project prior to the release of the DEIS and draft permits. Media coverage since then has been soft and the issuance of draft permits has not been considered a milestone event.
 - It is anticipated that opponents will use free media to advance messages on cost, ecology, and water quality.



Stakeholder Management, (cont'd.)

○ Stakeholder Management Goals:

- Increase awareness.
- Influencing and building consensus.
- Promote positive public opinion and support.
- Mitigate influence of NGO groups.
- Facilitate the approval and successful implementation of the Project

○ Goals achieved by playing to UWNV's strength, i.e., its ability to appeal to the entire customer base.

- Developed Project related materials to direct stakeholders to the Project website.
- Updated Project website using other successful U.S. desalination project websites as a resource / model.
- Continue Pilot Facility tours and open houses.
- Corporate Social Responsibility: Meet with and support civic, community groups / organizations, and officials; engagement of local schools and teachers, etc.
- Project Labor Agreement being progressed based upon January 13, 2012 direction.

Stakeholder Management, (cont'd.)



○ Next Steps:

- Continue to update Project website.
- Implement social media.
- Continue direct mail pieces, and editorials.
- Develop e-mail list and e-mail “blasts.”
- Underscore United Water’s 100+ years of service to the residents of Rockland County.
- Continue use of Pilot Facility for outreach.
- Continue outreach to NGOs.
- Cable TV and radio spots.
- Outreach to targeted communities (NAACP, Town of Haverstraw customers, Spanish and Yiddish speaking customers)
- Outreach to elected officials.

Stakeholder Management – Government Affairs



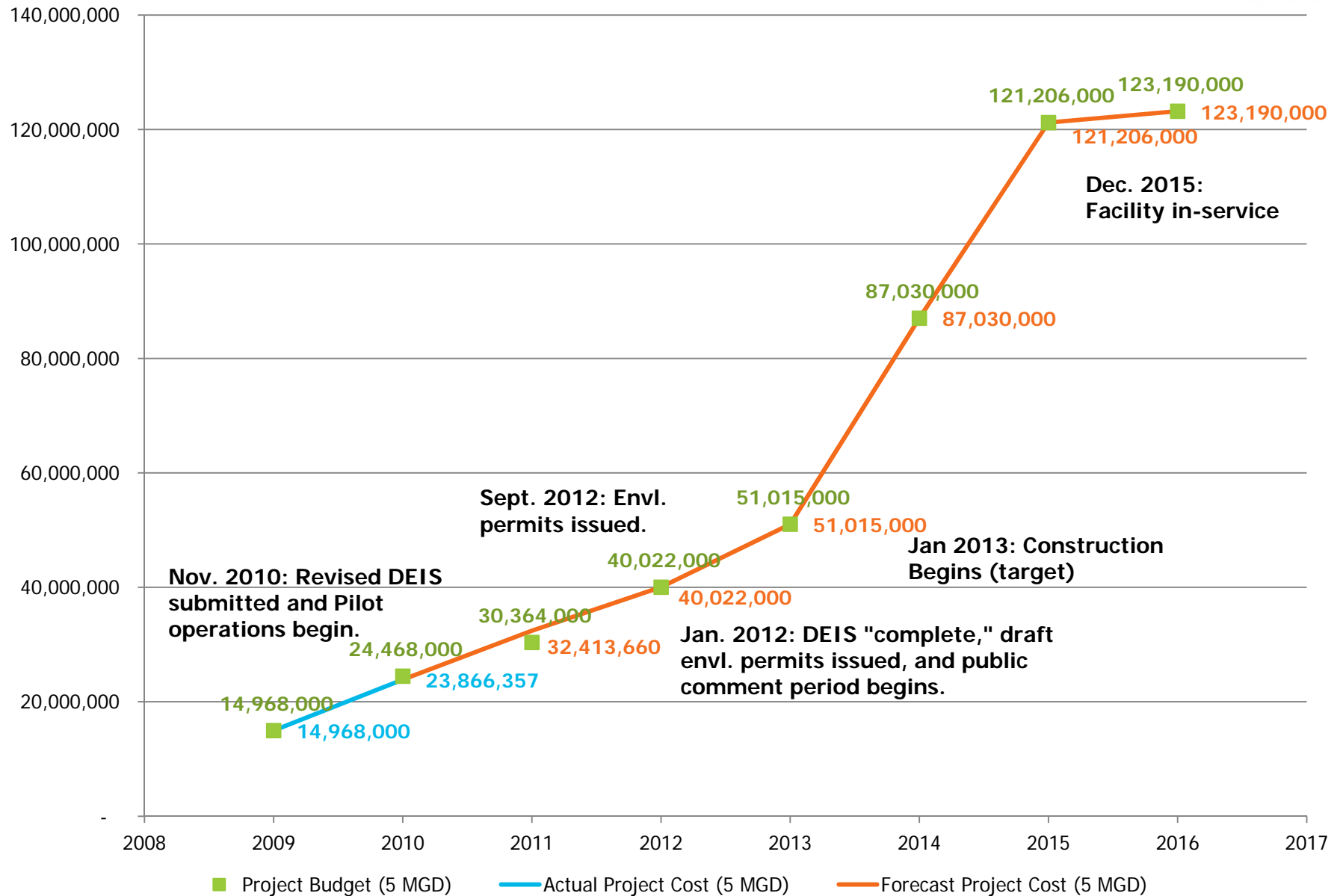
- **Government Affairs aimed at managing elected officials and local and state agencies.**
 - Continued engagement with NY Governor's office, senior political appointees, institutional civil servants at key state agencies, and local advocacy by the host Town as a major influencer of the Project.
 - Coordinating government affairs efforts with host community's government affairs consultant to leverage strengths.
 - Executive Management engagement of Key Decision Makers.

- **Recent discussions with the senior members of the Governor's Staff, have indicated continued interest in the Project and did not express any pre-dispositions against the Project.**
 - Governor's Staff and NYSDEC sought assurances that there will not be significant public opposition to drinking Hudson River water.
 - Governor's Senior Staff is prepared to meet with UW Senior Management in early February.

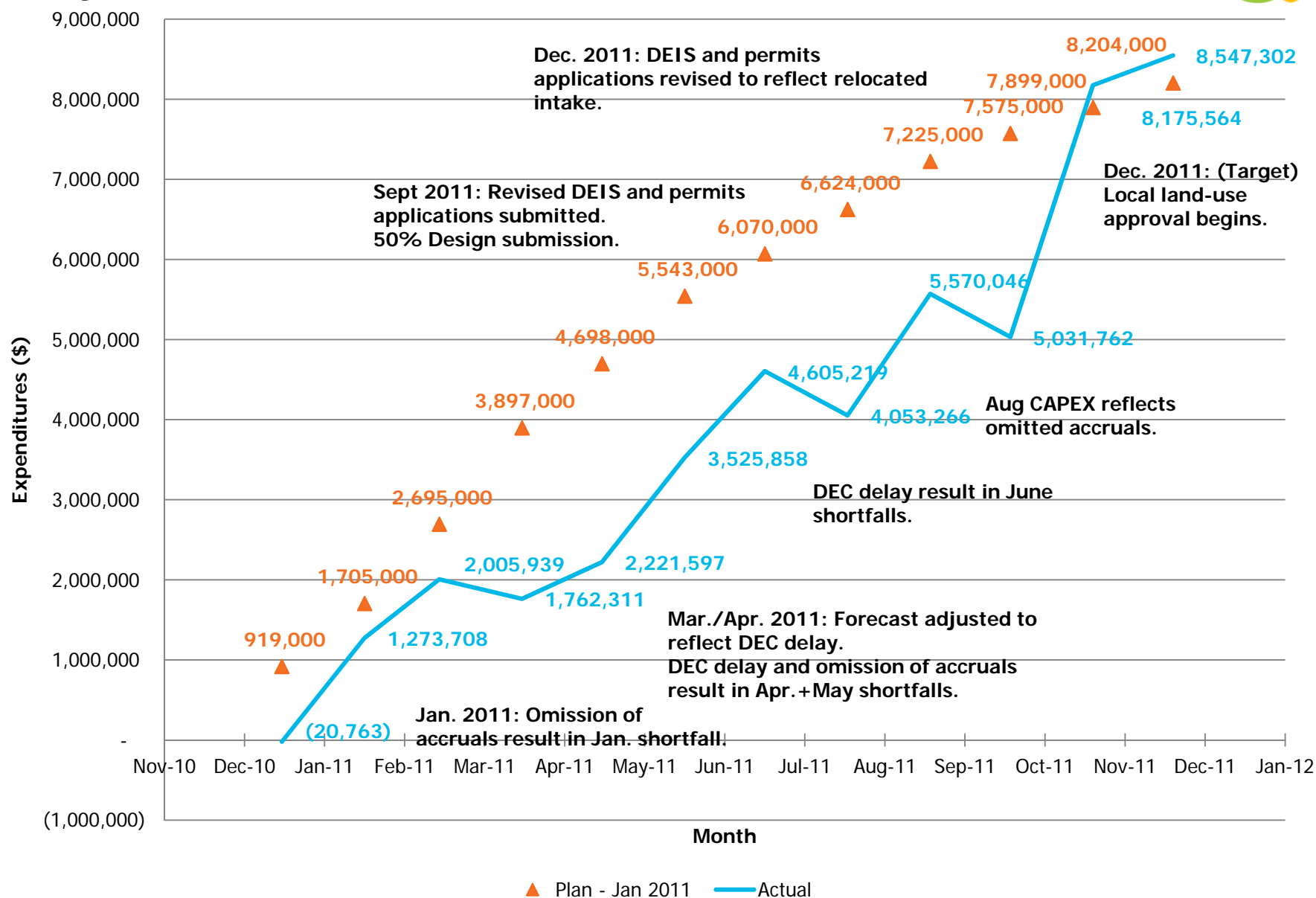
Haverstraw Water Supply Project

PROJECT BUDGET AND SCHEDULE

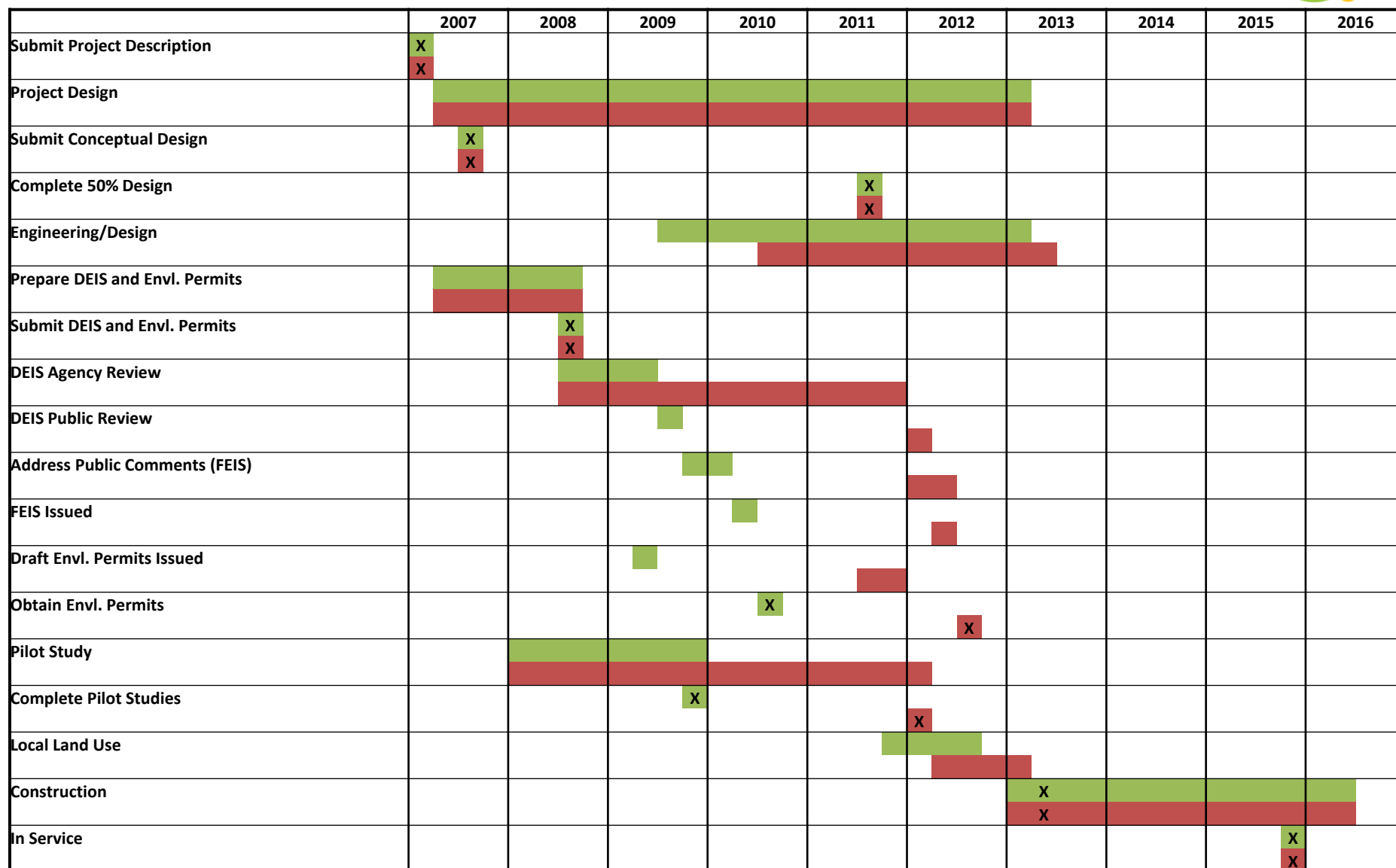
Project Costs



Project Costs – 2011 Plan



Project Schedule



Baseline
Current Status
Milestone



Internal Milestones

Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2 (Revised)

- EIS deemed complete and draft permits issued – 1/18/2012 *
- Adjudicatory hearing determination – 3/31/2011 *
- Evaluate stakeholder landscape – 8/30/2011
- 50% Design – 9/30/2011
- Decision Point – April 2012 (target)

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013

United Water New York Haverstraw Water Supply Project

Steering Committee Update – January 27, 2012

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Membrane Filter Procurement



- Membrane Filter procurement progressing pursuant to direction given at earlier Steering Committee meetings, to meet the May 31, 2013 PSC milestone for commencing construction.



Membrane Filter Procurement, (cont'd.)



- **In consultation with SE, the following criteria were established for membrane filters:**
 - Outside to inside flow configuration – less prone to fouling,
 - Hollow fiber PVDF membrane – more resilient to chemical cleaning, and
 - California Department of Health certification – recognized as the gold standard.

 - **These criteria significantly limit the available membrane suppliers to the following manufacturers:**
 - Dow
 - GE
 - Hydranautics
 - Toray *
 - Pall *
 - Siemens
- * Membranes tested at Pilot.

- **"The SmartRack unit provides an innovative feature: Interchangeability"**
- **"On a SmartRack unit the major module brands of the market can be fitted:**
 - TORAY
 - GE
 - DOW
 - PALL"
- **"The implementation, of SmartRack units provides for our Clients the unique possibility to interchange membrane suppliers on the same train This brings a critical flexibility in the choice of the most cost-effective but also most reliable treatment over the whole life of the plant."**

– *Source: DEGREMONT SmartRack Technical Description, February 2011, Issue A.*

DEGREMONT SmartRack, (cont'd.)



○ Membrane procurement proposed qualifications:

- 10 MGD (minimum) of membrane filtration systems installed globally within the last five years using hollow fiber PVDF membranes and with outside-in flow path.

○ Discussions with DEGREMONT:

- There are no full-scale SmartRack installations yet in service.
- There are 10 - 12 demonstration racks in use in France loaded with Toray, Pall, or other membranes.
- The design for other full-scale installations have been prepared.

Direction Requested



○ To include DEGREMONT in Membrane Filter procurement.

- Risks:
 - General risks of using new technology,
 - Potential future compatibility issues, and
 - PSC prudence review.

- Proposed approach: revise the qualifications requirements to be specific only to the membranes, and not the entire membrane system (i.e, the racks, piping, valves, etc.).
 - Risk: This could open the door to other membrane system integrators who would manufacture the racks, piping, etc, with membranes that meet the technical criteria.

United Water New York Haverstraw Water Supply Project

Steering Committee Update – April 3, 2012

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United Water New York Haverstraw Water Supply Project

Steering Committee Update – July 25, 2012

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Overview



- **Meeting Objectives**

- Brief/obtain guidance from Steering Committee on Project.

- **Property Acquisition**

- **EIS and Permits Status**

- **Pilot Study**

- **Design / Engineering and Local Approvals**

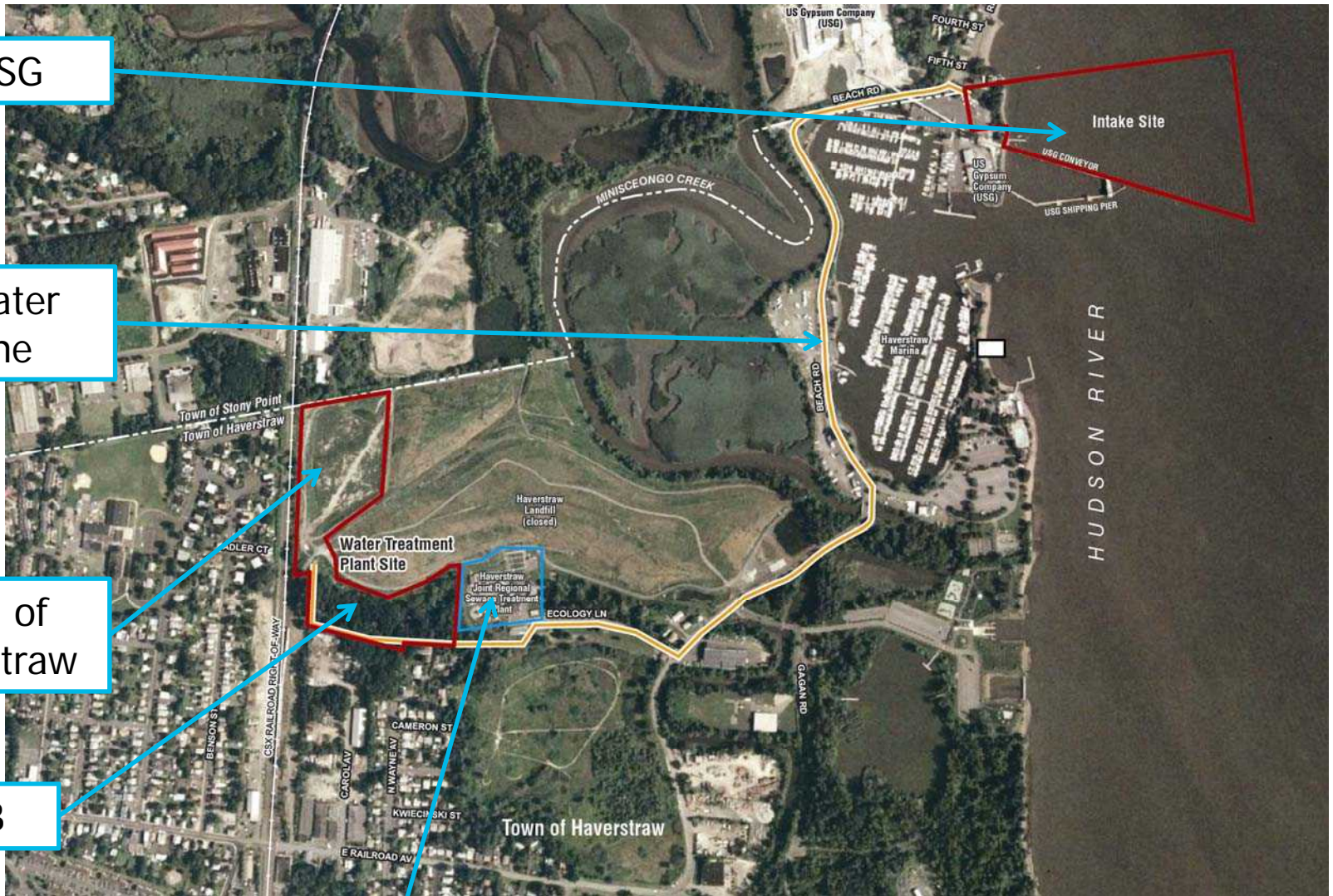
- **Budget and Schedule**

- **Stakeholder Management**

Haverstraw Water Supply Project

PROPERTY ACQUISITION

Property



Property Status



	USG	JRSB – Pipelines	DSB Realty – WTP Site	Haverstraw – WTP Site
Option Agreement	Executed, amendment pending	Pending	Executed, amended 12/2011	Pending
Option Term	Annual	N/A	2009 - 2013	2012 - 2013
Option Amount	\$50,000	N/A	\$400,000 plus annual property taxes (est. \$50K)	\$100,000 (proposed)
Purchase Amount	Fair market value	TBD, appraisal underway	\$1,100,000 (\$100,000 C&D cure amount)	\$1,050,000 plus \$200,000 amenity (proposed)
Appraised Amount	\$581,100 (2008, alternate intake location not included)	\$30,000 (estimate)	\$1,040,000 (2008)	\$1,150,000 (2008, adjusted to reflect increased purchase area)

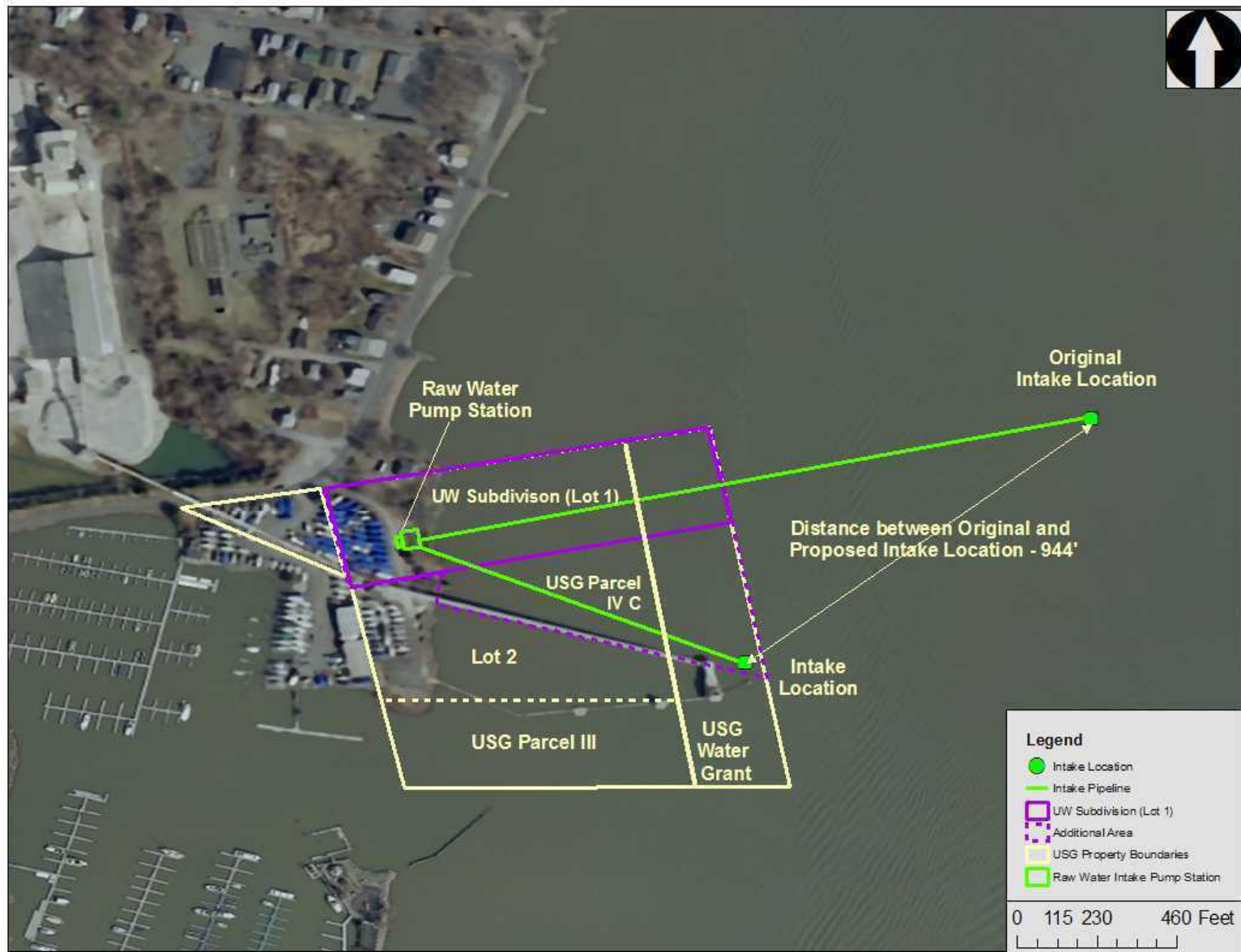
Property Status, (cont'd.)

	Option	Purchase	Amenity	Total
USG *	190,000	726,100	-	916,100
Haverstraw	100,000	1,050,000	200,000	1,350,000
DSB	400,000	1,100,000		1,500,000
JRSB		28,753		28,753
Total	690,000	2,904,853	200,000	3,794,853

- Total property costs provided, including costs incurred to date.
- Closing on property purchases deferred to occur in Q1 of 2013 to allow for a April 2013 construction start.

* USG cost includes adjustment (i.e., increase in purchase area) for relocating intake.

USG – Intake Location



USG Status



○ May 10: Meeting with USG:

- Explain need to change location to accommodate NYSDOS Coastal Zone Management.
- Address USG operational / technical concerns related to relocating intake near conveyor / pier.
- Receive conceptual buy-in for relocation / agreement amendment.

○ Agreement amendment conditioned upon:

- Operational / technical concerns being resolved.
 - Operational / technical concerns appear to be resolved.
- No additional risk to USG: liability or operational.

○ Next steps:

- Obtain letter of intent to amend agreement from USG (to provide to NYSDOS).
- Provide amendment of agreement to USG.
- Prepare operational agreement between UWNV and USG to formalize operational requirements and communications protocols.

Proposed Offer to the Town of Haverstraw



- The Town of Haverstraw is the property owner of the WTP site as well as the host community for the Project.

Item	Amount (1,000 \$'s)
Property Value *	1,350
2012 Option	50
2013 Option	50
BUD Material	(400)
Purchase Price	1,050
Amenity (cap)	200

* Appraised (adjusted based on increased purchase area) value = \$1,150 K

Proposed Town of Haverstraw Amenity



Haverstraw Water Supply Project

EIS AND PERMITS STATUS

EIS and NYSDEC Permit Status

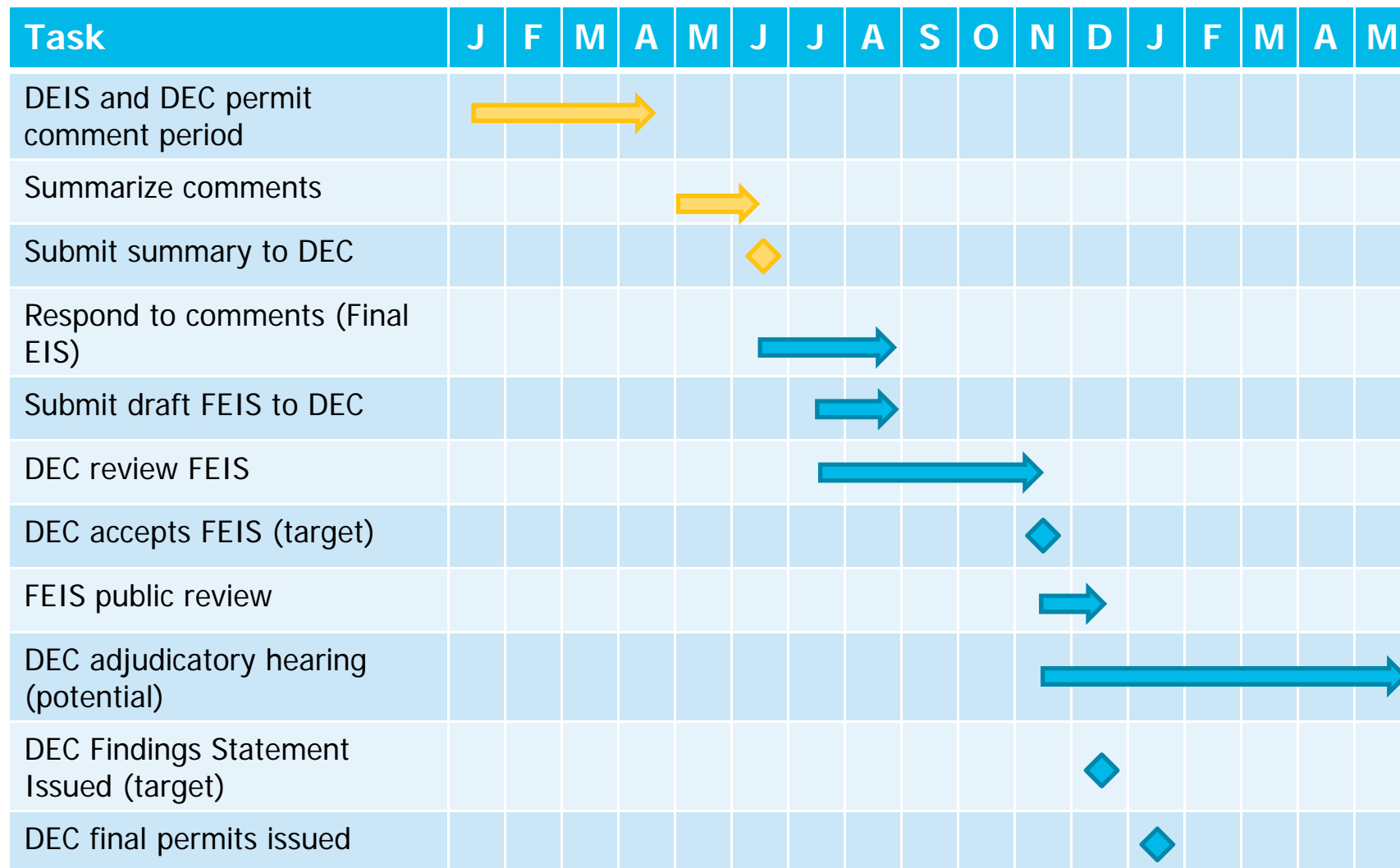


- **January 13:**
 - NYSDEC date to issue Notice of Complete DEIS and Acceptance of DEIS.
 - NYSDEC date to issue Notice of Complete Permit Application and issue draft permits.
- **January 18: Public comment period begins.**
- **January 31: NYSDEC extends comment period to end on April 20, and moves public hearing to March 6.**
- **March 6: NYSDEC conducts 2 public hearings at Haverstraw Town Hall.**
 - A total of 90 people spoke at both hearings.
 - 32 people spoke in support of the Haverstraw Water Supply Project.
- **April 20: Public comment period ends.**
- **May 16: NYSDEC supplies all public comments to UW.**
 - 2,843 comment letters received by NYSDEC requiring responses.
 - 1,321 direct comment letters against the HWSP with multiple comments per letter.
 - 1,522 comment letters / postcards in support of the HWSP.
 - 1,087 copies of letters to the NYSDOS were sent to the DEC, which will also be addressed.

EIS and NYSDEC Permit Status, (cont'd.)

- June 18: Summary of Comments sent to NYSDEC
- June 18 – August 31: Responses to Comments will be drafted and submitted to NYSDEC.
- June 20: A group of opponents, including Riverkeeper, Scenic Hudson, and Clearwater, submitted a letter to the NYSDEC Commissioner requesting additional public hearings as well as an administrative hearing to raise “substantive and significant” issues (an “Issues Conference”), which is the first step in adjudication.
- June 25: Bob Alessi on behalf of UWNH submits a letter to the NYSDEC Commissioner that pointed out that the opponents’ letter is “replete with inaccuracies and misrepresents the Project; it appears that whomever drafted the letter lacks unfamiliarity with the DEIS for the Project.”
- The NYSDEC Commissioner's Office is expected to respond to the opponents’ letter shortly.

EIS and NYSDEC Permits 2012 – 2013 Timeline



Federal and State Permits



○ Army Corps of Engineers (“ACOE”)

- October 2011: UWN Y submits ACOE permit applications for nationwide permits.
 - Nationwide permits require less documentation to be submitted with the applications, and have a less complex approval process than “specific permits”
 - Specific permits have a public comment process, usually 30 days with an optional public hearing.
- January 2012: UWN Y amends permit applications to reflect intake revisions.
- March 29: ACOE notifies UWN Y that due to regional ACOE rules, the Project cannot be issued nationwide permits and will be processed under a specific permit.
- May 3: UWN Y revisits nationwide permit decision with ACOE. ACOE request UWN Y’s rationale for issuing nationwide permits in writing.
- May 14: UWN Y submits rationale for issuing nationwide permits for the Project.
- June 13: ACOE verbally notifies UWN Y that it disagrees with UWN Y’s rationale for issuing nationwide permits.
- Since the ACOE cannot issue nationwide permits until an FEIS is issued, the schedule benefit of a nationwide permit will not be realized, so there is limited schedule risk with ACOE issuing a specific permit.

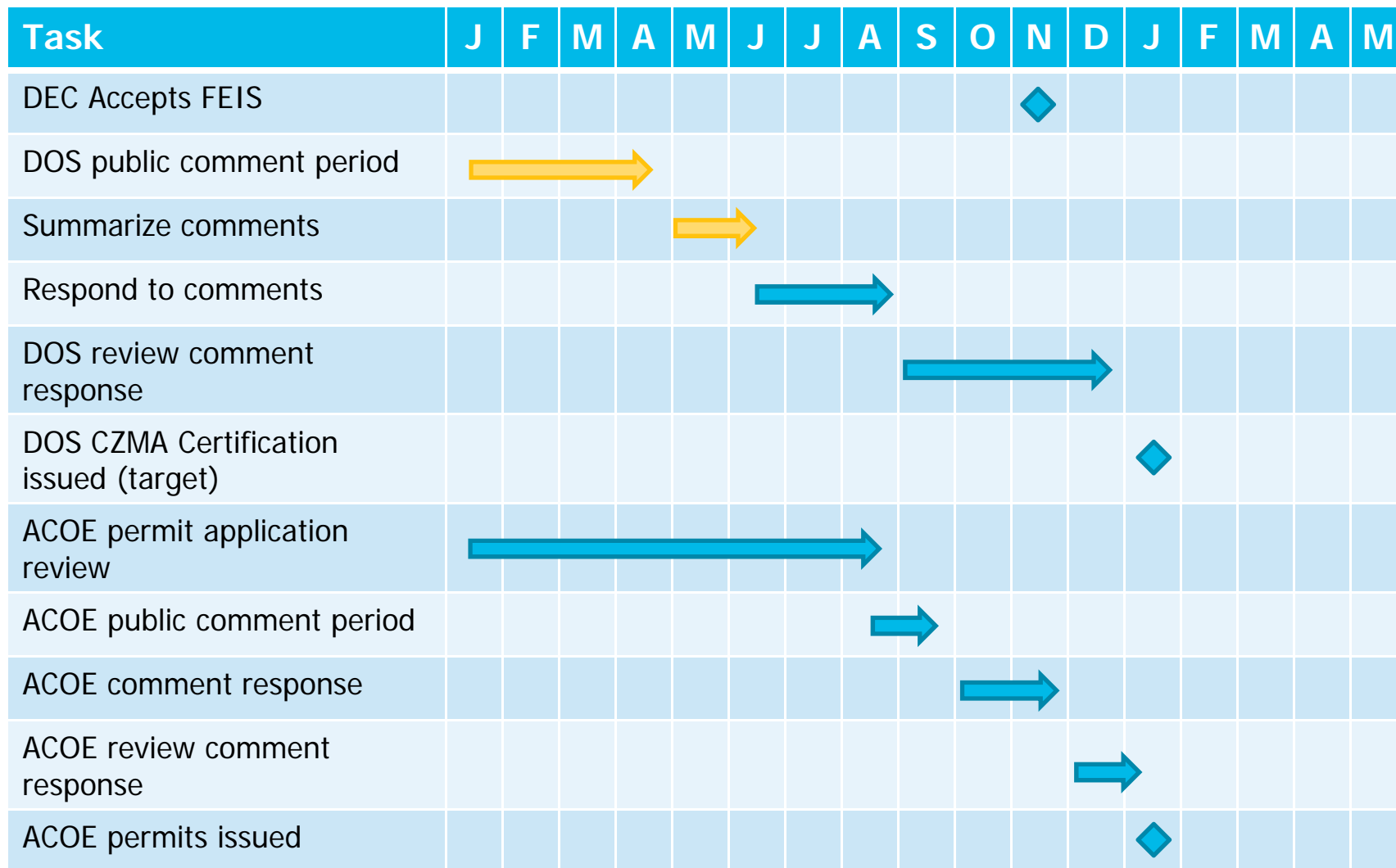
Federal and State Permits, (cont'd)



○ New York State Department of State (“DOS”)

- October 2011: UWNY submits revised consistency application to DOS.
- January 18: Based on complete DEIS, DOS begins 6 month review period and public comment period, which is extended twice to ultimately end on April 20, coinciding with the end of the DEIS comment period.
- March 15: DOS sends UWNY a Request for Additional Information (“RAI”) requesting information on two items:
 1. The impacts of the RO Concentrate, discharged to the JRSB outfall, to the Hudson River biota; and
 2. Documentation that UWNY has rights to locate the intake adjacent to the USG conveyor and the riparian rights for the withdrawal of water from the Hudson River from this location.
 - Response to riparian rights portion of RAI is pending letter from USG.
- April 20: DOS comment period ends.
- April 24: UWNY provides RO Concentrate information requested by DOS.
- July 10: UWNY and DOS agree to extend the DOS review period to October 30 or when the FEIS is issued.
 - DOS agreed to commence its review of UWNY’s consistency application before an FEIS was issued provided UWNY extended the review period until an FEIS is issued.

ACOE and DOS Permitting 2012 – 2013 Timeline



Haverstraw Water Supply Project

DESIGN/ENGINEERING AND LOCAL APPROVALS

Design and Engineering Status



- **Project design is estimated to have progressed to >65% (an average of all components) :**
 - Process design: 90%
 - Hydraulic grade: 95%
 - Process Flow: 95%
 - Site Plan: 60%
 - Architectural plan: 50%
 - Electrical, Instrumentation, Plumbing, HVAC, etc.: 30%

WTP Building Architectural and Solar Options



- **The Town of Haverstraw has expressed interest in the architectural appearance of the buildings.**
 - Haverstraw historically known as the “the Brickmaking Capital of the World.”
- **Architectural design of the both sites contemplates the incorporation of solar energy.**
 - Building structures can accommodate standard solar panels (i.e., solar panels at a 10 degree angle) or solar roof membrane.
 - Solar panels shown on WTP architectural renderings for conceptual purposes, but not included in Project costs.

Option	CAPEX	Output
Solar roofing membrane	\$300K	80 kW
10 degree solar panels on building roof	\$1,100K	160 kW
45 degree solar panels on building roof	\$2,030K	150 kW
10 degree solar panels on tanks	\$470K	71 kW

Building Architectural and Solar Options, (cont'd.)

- **Exploring the possibility of a partnering with a municipality and a 3rd party on a solar project.**
 - Clarkstown has an application into NYSERDA for a solar grant and a request for proposals for a 3rd party to develop and construct the solar project on its closed landfill. The 3rd party would permit, construct, and operate the solar panels and sell energy to Clarkstown (and presumably UWNY if it joins the partnership).
 - Risk: NYSERDA grant is not approved; Clarkstown, the 3rd party, and / or UWNY will have to provide capital.
 - The 3rd party would hold and trade the emissions credits for the solar project.
 - Haverstraw also has a closed landfill, which is adjacent to the WTP, and the Town Supervisor has expressed interest in partnering in a green energy project.
- **Steering Committee direction requested for:**
 - Architectural design screening and finalization process.
 - Incorporation of solar into building design.

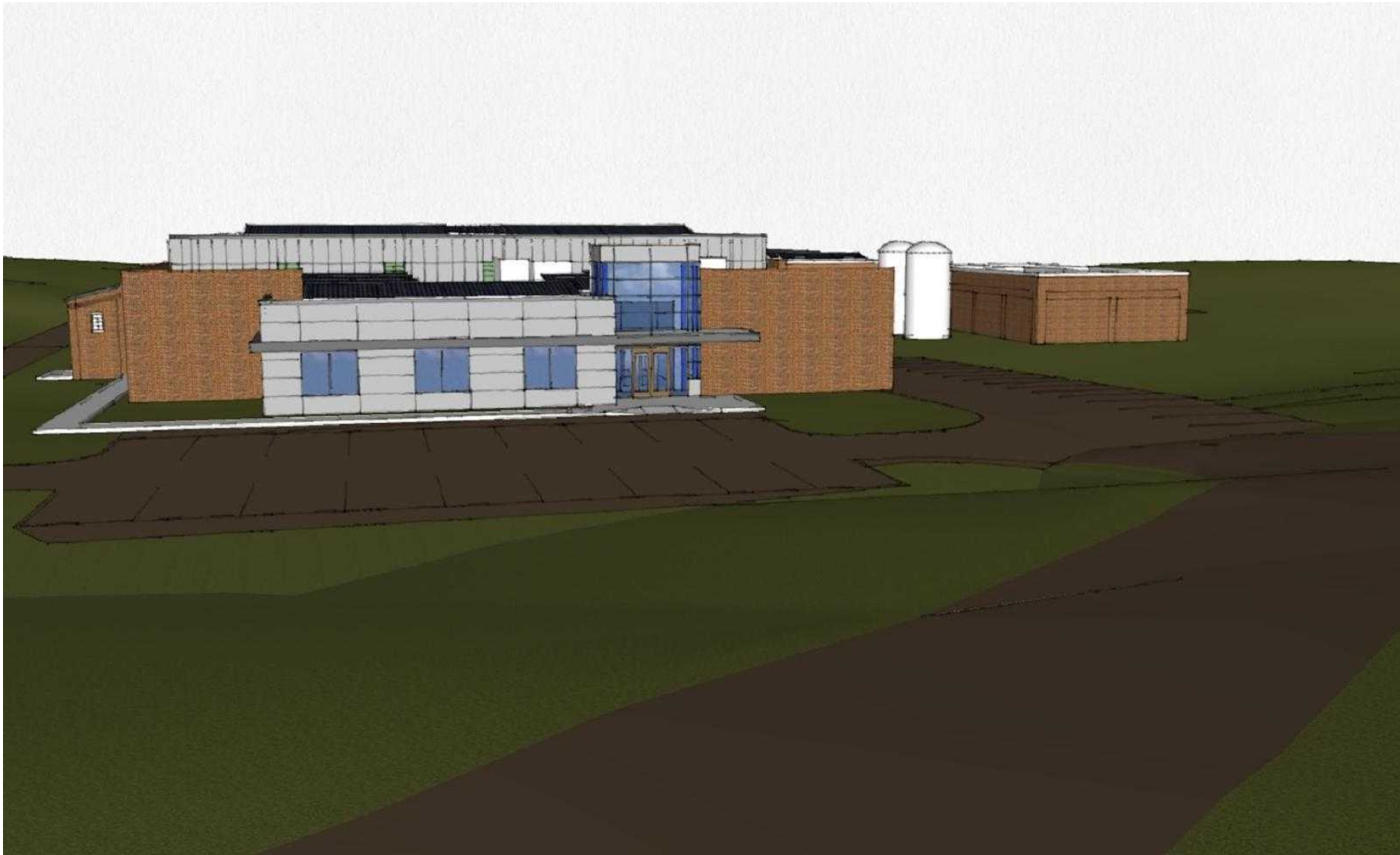
WTP Architectural Concept 1



WTP Architectural Concept 1, (cont'd.)



WTP Architectural Concept 2



WTP Architectural Concept 2, (cont'd)



WTP Architectural Concept 3



WTP Architectural Concept 3, (cont'd.)



WTP Architectural Concept 4



WTP Architectural Concept 4, (cont'd.)

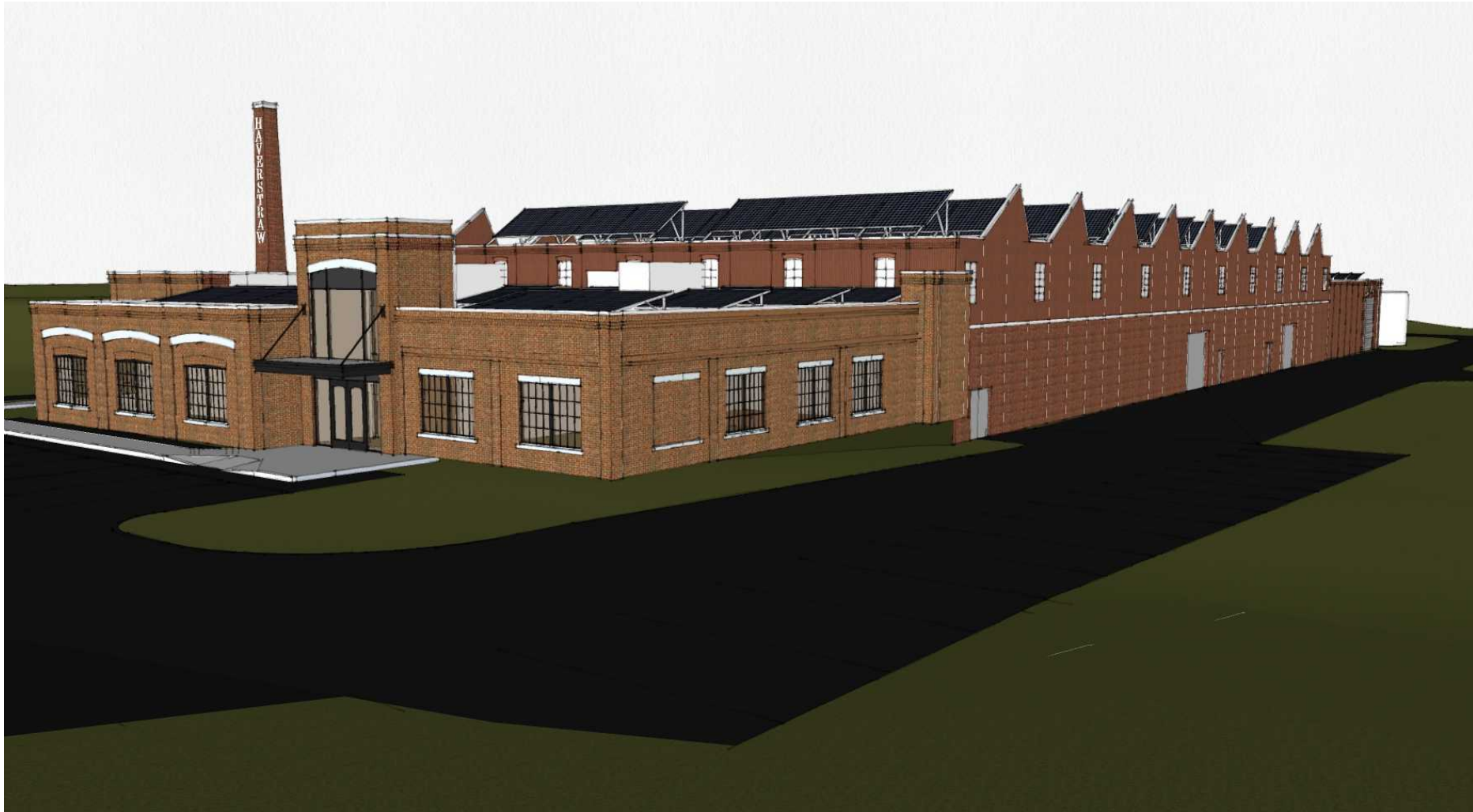


WTP Architectural Concept 5



Concept 5 is the same architectural cost as Concept 4. The 45 degree solar panels, however, will increase the construction cost by approx. \$2,500K only if the 45 degree solar panels are selected.

WTP Architectural Concept 5, (cont'd.)



Local Approvals Status

- At the Town of Haverstraw's request, UWNY delayed the submission of its applications until after the NYSDEC public hearing and comment period.
- May 24: The local approval process started in May 2012 with informal pre-application meeting with Town Zoning and Planning Boards and consultants.
- June 20: Zoning analysis review meeting with Building Inspector and Town Planner.
- June 26: Informal pre-application meeting with Town Zoning and Planning Boards and consultants.
- August 2012: Final pre-application meeting (target).
- September 2012: Submission of site plan and zoning variance applications (target). Submission of site plan application is contingent of selecting architectural appearance of building.
 - The formal approval process is expected to take 6 – 9 months. The target is to have all approvals/ permits issued by April 2013 so that construction can begin in May 2013.

Local Approvals 2012 – 2013 Timeline



Task	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M
NYSDEC Accepts FEIS											◆						
Preliminary Meetings with Town Boards					→												
Finalize Architectural								◆									
Submit Permit Applications									◆								
Town Board Review										→							
Planning Board Review										→							
ZBA Review										→							
Architectural Board Review										→							
Board approvals													◆				
Building Permit review / conditional approvals issued														→			
Building Permit issued																◆	

Membrane Filters Procurement



- The procurement package for the membrane filters was issued in June to the following membrane suppliers or system fabricators, or both:

Supplier	Membranes	Skid
IDI		X
GE	X	X
Pall	X	X
Dow	X	
Torray	X	
h2o innovations		X
Tonka Equipment		X

- June 22: RFP Issued
- July 13: Comments on agreement received from suppliers.
- August 8: Proposals Due

Membrane Filters Procurement, (cont'd.)



○ Proposed Membrane Filter Supplier Selection Criteria

- System cost
- System area
 - The system footprint impacts the size of the building and therefore the overall project cost. As such it is possible that a more expensive system that has a smaller footprint may result in a lower overall Project delivery cost than a less expensive system with a larger footprint.
- Membrane Module replacement cost
- Chemical use
- Energy use
- Warranties
- Installation track record
- Agreement terms

○ Proposed selection process:

- Project team to evaluate proposals and make a recommendation to the Steering Committee.

○ Direction requested on proposed membrane filter supplier selection criteria and selection process.

Haverstraw Water Supply Project

PILOT STUDY

Pilot Study Status



○ Pilot operations

- December 2010 – March 2011: DEIS data collection focused on supplementing water quality data and validating model and calculations in DEIS.
- March – October: Data collection focused on supporting permits, establishment of the water treatment process, and optimization of water treatment process.
- October 2011 – Present: Data collection focused on supporting the design of the water treatment process.
- The salinity, an indicator for Boron, has been elevated since April limiting the Pilot's operation to avoid exceeding the JRSB Boron discharge limit (0.23 mg/L).
- The Pilot was shutdown at the end of July since the goals / objectives established in the testing protocol have been achieved.

○ Pilot Study through June 2012:

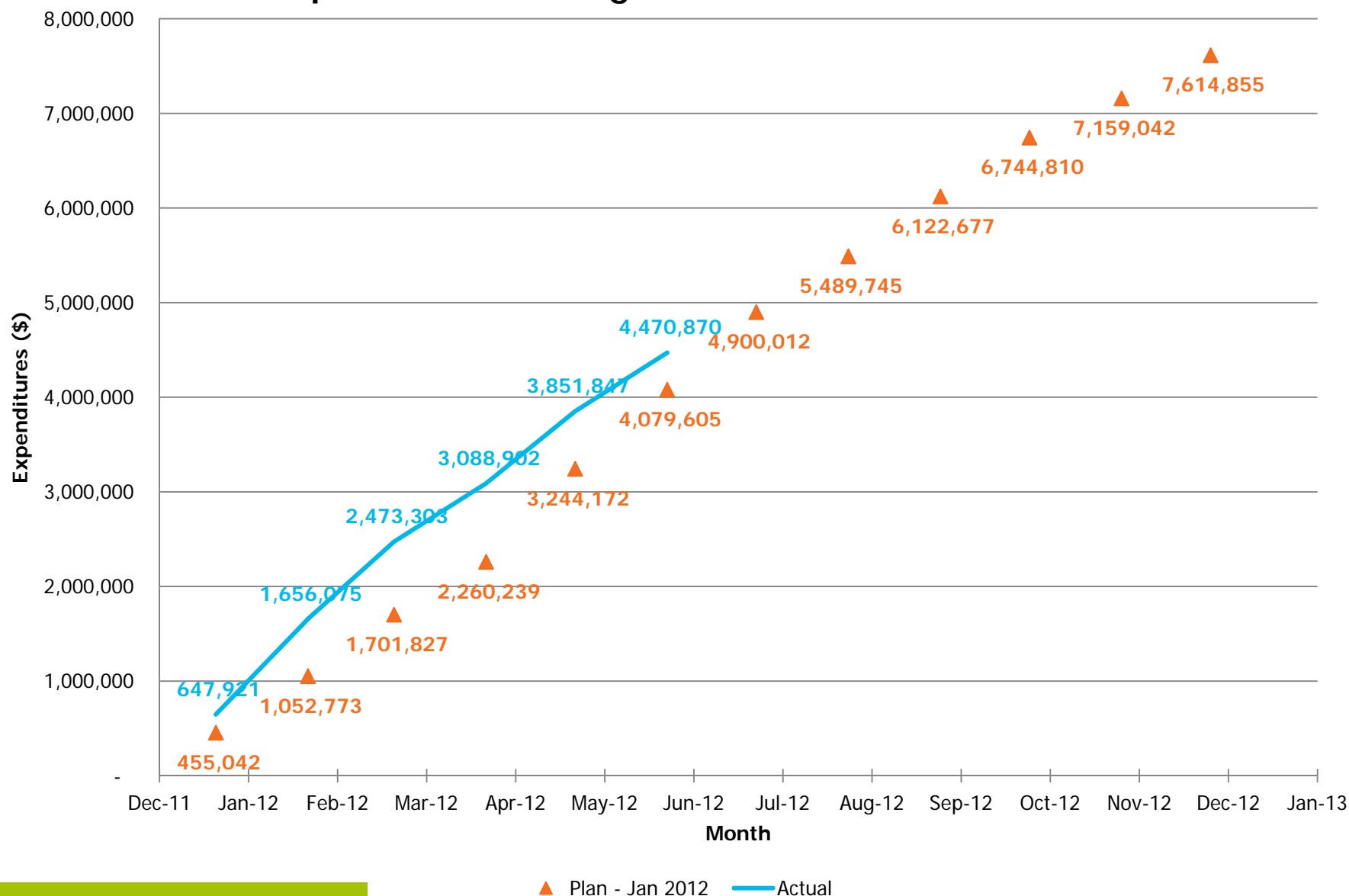
- The Pilot has treated approximately 50 million gallons of river water.
- Approximately 9,930 laboratory samples collected and analyzed.
- Approximately 465 days of river water operations.

Haverstraw Water Supply Project

PROJECT BUDGET AND SCHEDULE

2012 Project Costs

2012 will be on plan due to shifting costs to 2013.



2012 Project Costs, (cont'd.)

- In the event UWNY has additional capital in 2012, Project costs shifted into 2013 from 2012 can be moved back into 2012.

Activity	MTP	Shift from 2013	Total
Environmental Impact Statement	675,000	990,000	1,665,000
Permitting	277,000	200,000	477,000
Pilot Plant	758,000	411,000	1,169,000
Engineering	3,195,000	359,000	3,554,000
Water Quality Buoy	122,000		122,000
Legal	750,000		750,000
Outreach	496,000		496,000
Property Purchase	450,000		450,000
UW Labor & Expenses	338,000		338,000
Sub-Total	7,061,000	1,960,000	9,021,000
Overhead	565,000	157,000	722,000
Total	7,626,000	2,117,000	9,743,000

Project Budget

- **Project budget / MTP of \$123,190,000 relied on 2008 construction estimate plus escalation to construction.**
- **Construction cost estimate revised in June 2012 due to advancement of project design.**
- **Based on the current construction cost estimate and scope changes, there is a projected increase in the Project costs. The primary drivers for the increase are:**
 - Adjudication / litigation avoidance;
 - Reducing the intake slot size to 0.5-mm from 2.0 mm
 - To accommodate NYSDEC and NYSDOS concerns regarding entrainment and impingement of aquatic life in the Haverstraw Bay significant habitat.
 - Relocating the intake to the disturbed area adjacent to the USG conveyor
 - To accommodate NYSDOS concerns regarding disturbance of the river bottom in the Haverstraw Bay significant habitat.
 - Stakeholder management;
 - Public comments on the DEIS, NYSDEC draft permits, and DOS consistency review;
 - Raw Water Pipeline Minisciongo Creek and federal wetlands crossings;
 - NYSDOH membrane filtration redundancy requirement;
 - Orange and Rockland distribution system improvements;
 - Construction support services; and
 - Proposed Finished Water stabilization testing.

Next Steps – Value Engineering

○ Value Engineering review:

- Project design
- Construction costs, schedule, and sequence.

○ Proposed participants:

- UW operations staff with membrane experience (3 – 4)
- External consultants (2 – 3)
 - Design and construction expertise (e.g., intake, piles, etc.)
- Project team

○ Schedule: 3 days preparation, 1 – 2 day review / workshop in late-August / early-September.

- Timing dependent upon completion of river soil borings and lab analysis.

○ Estimated cost:

- Labor: \$ 30,000
- Expenses: \$ 10,000
- **Total: \$40,000**

○ Direction requested:

- To conduct the value engineering review

Risks and Opportunities



○ Risks

- Increased solid waste (“C&D”) quantity encountered at JRSB or DSB or disposal costs.
- Increased dredged materials disposal quantity or costs.
- Intake geotechnical borings (currently being conducted) show less favorable conditions.
- Membrane filter proposals significantly higher than plan.
- Pilot stabilization testing shows blending is required.
- Construction bids significantly higher than plan.
- Level of contingency (5% of direct construction costs).
- NYSDOH requires additional redundancy for:
 - Solids Handling – increase number of gravity thickeners and belt filter presses to 2 from 1.
 - CCT/FWS – increase CCT/FWS to 2 from 1.

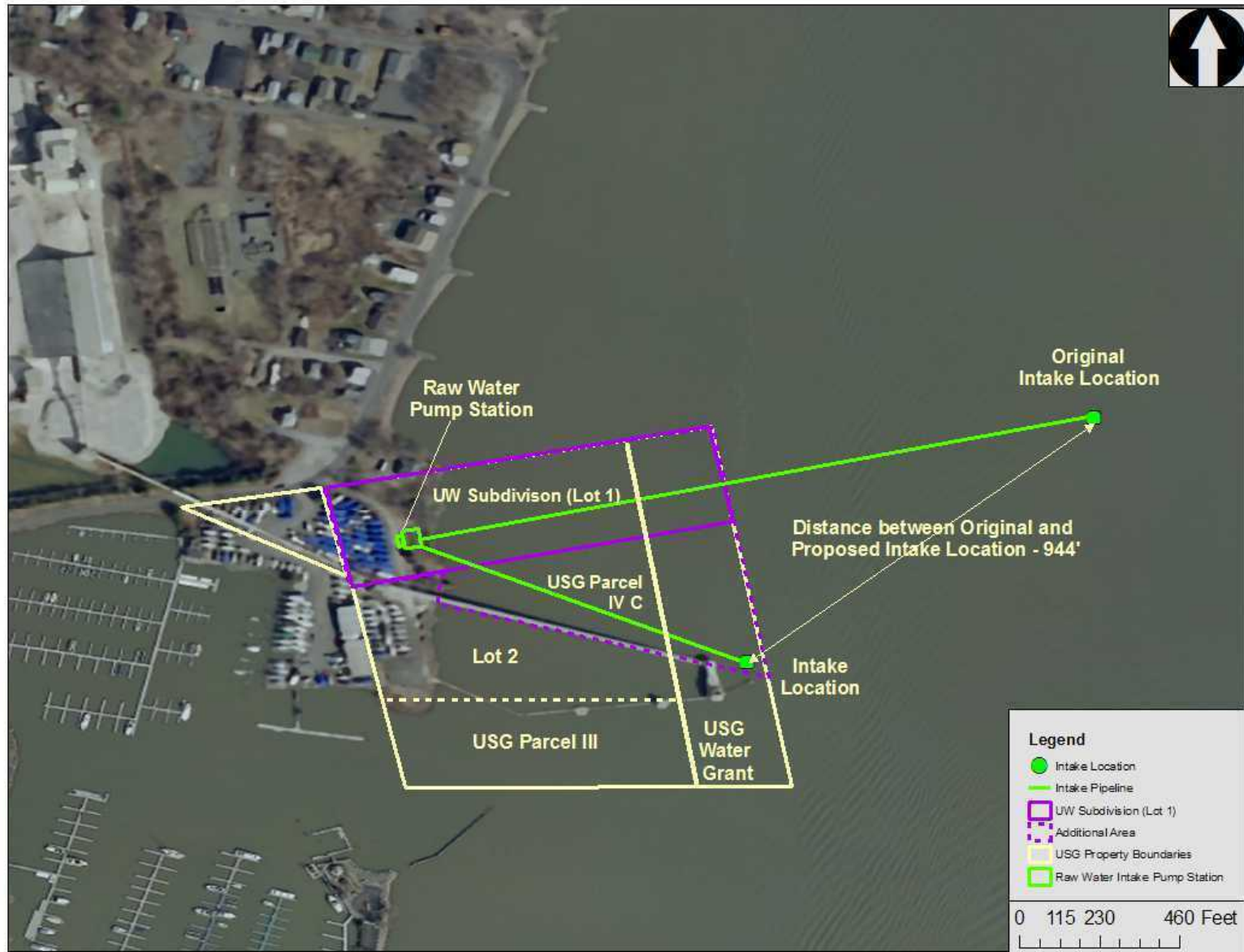
Risks and Opportunities, (cont'd.)



○ Opportunities

- Intake geotechnical borings (currently being conducted) show more favorable conditions.
- Reduce intake pump station building area to allow for pre-fabrication / modular construction.
- Raw water pipeline geotechnical investigation allows for alternative Minisceongo Creek crossing.
- Membrane filter selection allows for reduction of membrane building size.
- WTP geotechnical investigation allows for increased space between piles.
- Value engineering exercise results in cost reductions.
- Alternative delivery of WTP construction (e.g., construction management at risk, EPCM, etc.)
- Electrical and I&C design advancement will identify cost reductions.
- Shift Finished Water Distribution mains to UIRP (\$3,000K)

Cost Increase – Intake Revisions

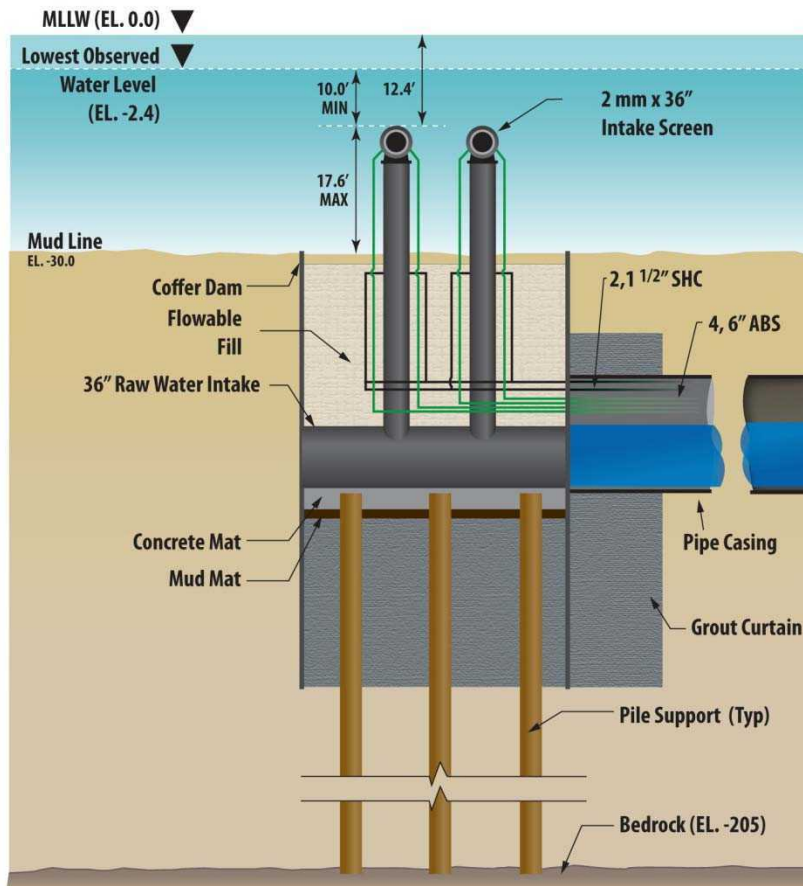


Cost Increase – Intake Revisions, (cont'd.)



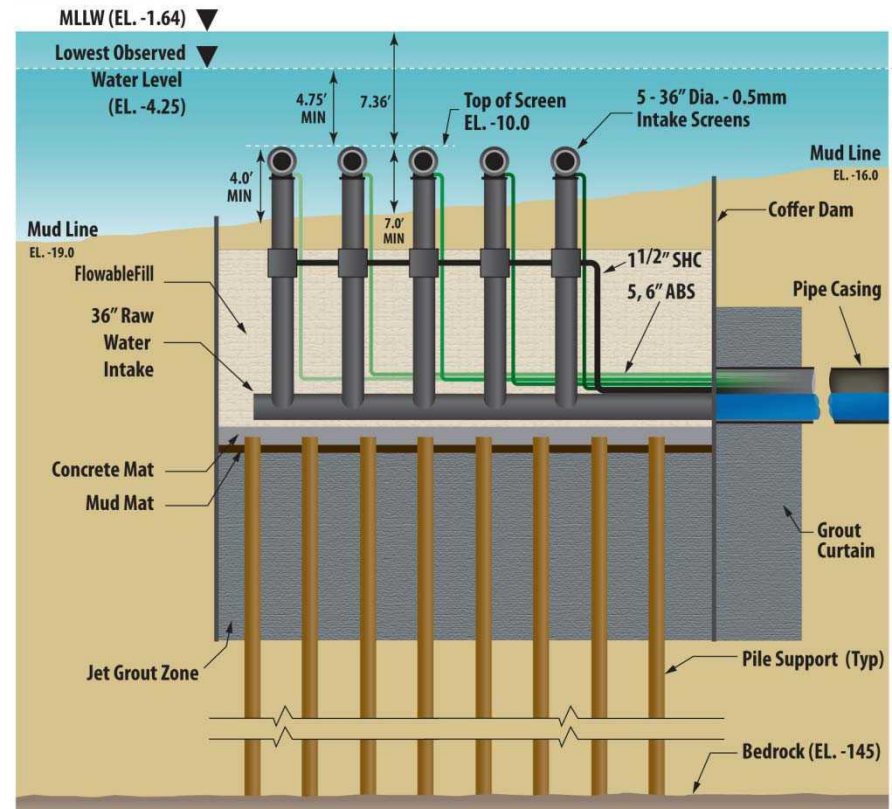
Original Intake location, 1,500-ft offshore, 2-mm screen opening

Intake Detail



Intake adjacent to USG conveyor, 900-ft offshore, 0.5-mm screen opening

Intake Detail



Note: Pile quantity and configuration may change based on soil boring results.

Cost Increase – Intake Revisions, (cont'd.)

- **Intake construction cost estimates provided by J. F. Creamer and Weeks Marine.**
- **Construction cost increase due to:**
 - NYSDEC draft permit requirements.
 - Decrease the intake screen slot size to 0.5 mm from 2.0 mm, results in an increase in the number of screens.
 - Increase the number of intake screens and risers to 5 from 2.
 - Increase the size of the coffer dam construction to accommodate 5 risers.
 - Increase the pile quantity due to the increase in intake risers.
 - Increase the jet grout quantity due to the increase in intake risers.
 - Increase the size of the Intake Pump Station to accommodate a larger air receiver and appurtenances.
 - Increase the size of the intake tunnel diameter to accommodate the air and chemical lines for 5 screens.
 - Additional electrical and I&C work due to additional screens.
 - Decrease the length of the intake tunnel to approx. 900 ft from 1,500 ft.
 - Reduced productivity due to proximity to USG pier (2.5% increase in General Conditions).
 - Additional marine liability insurance due to proximity to USG pier (2.5% increase in General Conditions).
 - Additional geotechnical and sediment borings.

Cost Increase – Intake Revisions, (cont'd.)

- Project budget (and 2010 Lookback document) relied upon cost estimate prepared by Black & Veatch in 2008.
- Geotechnical borings performed in the river from July 2011 – October 2011.
- As a result of not having geotechnical data the 2008 cost estimate:

Item	Cost Adjustment
Excluded grout plug	709,000
Excluded piles	967,000
Excluded coffer dam	876,000
Included directional drilling, not microtunnel	1,268,000
Total Direct Construction Cost	3,820,000

- Direct Construction Cost exclude contractor overhead & profit, general conditions, contingency, and UW overhead.

Cost Increase – Intake Revisions, (cont'd.)



	Project Budget Estimated Cost	2012 Estimated Cost	Variance
Intake, piles, coffer dam, tunnel, and piping	1,714,000	8,093,000	6,379,000
Omitted from 2008 Estimate	-	3,820,000	3,820,000
Intake Pump Station	1,056,000	1,784,000	728,000
Electrical and I&C	554,000	2,740,000	2,186,000
Overhead & Profit	-	1,644,000	1,644,000
General Conditions	333,000	2,466,000	2,133,000
Contingency	665,000	822,000	157,000
Construction Cost	4,322,000	21,369,000	17,047,000
Project Development Costs for Intake revisions	-	1,379,000	1,379,000
UW Overhead	346,000	1,820,000	1,474,000
Total	4,668,000	24,568,000	19,900,000

Cost Increase – Intake Revisions, (cont'd.)

○ **Project development cost increase due to:**

- Additional in river geotechnical work;
- Additional surveying;
- Additional engineering / analysis;
- DEIS revisions; and
- Permit application revisions / amendments.

Cost Increase – Intake Revisions, (cont'd.)

Estimated project development cost increase

Item		Estimated Cost Increase
Geotechnical & Sediment Sampling Borings		534,000
EIS Revisions		300,000
Engineering		45,000
Surveying		50,000
Permitting		150,000
Legal		200,000
UW Labor and Expense		100,000
Total Direct Costs		1,379,000
UW Overhead	8%	111,000
Total Increase		1,490,000

Cost Increase – DEC/DOS Public Comment



- **Significant number of comment letters received by NYSDEC and NYSDOS.**
 - 2,843 comment letters received by NYSDEC requiring responses.
 - 1,321 direct comment letters against the HWSP with multiple comments per letter.
 - 1,522 comment letters / postcards in support of the HWSP.
 - 90 speakers at public hearing
 - Approx. 60 speakers spoke in opposition to the Project.
 - Approx. 30 speakers spoke in support of the Project.
 - 1,087 copies of letters to the NYSDOS were sent to the DEC, which will also be addressed.
 - All comment letters contained multiple comments.
- **Project budget used number of comments received during the public scoping process as a guideline.**
 - Scoping comment letters: Approx. 70
 - Project budget assumed 400 – 500 total comments to be addressed.
- **Increase in comments results in longer duration and increased time to address comments.**

Cost Increase – DEC/DOS Public Comment, (cont'd.)



Item		Estimated Cost Increase
DEC		420,000
DOS		270,000
Legal		150,000
UW Labor and Expense		75,000
Project Development Cost Increase		915,000
UW Overhead	8%	74,000
Total Increase		989,000

Cost Increase – Raw Water Pipeline

○ Construction cost increase due to:

- Crossing the Minisciongo Creek (connected to tidal wetlands) requires the use of trenchless technology, the cost of which increased due to the geotechnical borings data.
- Crossing Army Corps wetlands requires rehabilitation of a drainage stream by installing 2 headwalls and a culvert over the Raw Water Pipeline.
- Additional Dewatering quantities along the route of the Raw Water Pipeline due to observed high groundwater.

○ Raw Water Pipeline construction cost estimate provided by J. F. Creamer.

Cost Increase – Raw Water Pipeline, (cont'd.)

Raw Water Pipeline

Army Corps of Engineers Wetlands Crossing



Miniscongo Creek Crossing

Cost Increase – Raw Water Pipeline, (cont'd.)



Item		Estimated Cost Increase
Jack and Bore Cost		948,500
Dewatering		569,100
Wetlands Crossing		379,400
Overhead & Profit	10.00%	190,000
General Conditions	10.00%	190,000
Contingency	5.00%	95,000
Construction Cost Increase		2,372,000
UW Overhead	8%	190,000
Total Increase		2,562,000

Cost Increase – NYSDOH Membrane Filter Redundancy Requirements

- **NYSDOH notified UWNY that it requires a redundant membrane filter with:**
 - 1 unit out of service; and
 - 1 unit being cleaned (monthly for 3 – 24 hrs)
 - Resulting in N+2 redundancy under normal operation.
- **To achieve the redundancy requirement, 1 membrane filter was moved from a later phase of the Project (i.e., 2020) and installed in the current phase.**
 - Installing an additional membrane filter in Phase 1 allowed for the elimination of an intermediate storage/balancing tank between the membrane filters and reverse osmosis, thereby reducing the building size.
 - This requirement and approach was discussed in depth and concurred with during the Process Peer Review conducted in February 2012.

Cost Increase – NYSDOH Membrane Filter Redundancy Requirements

Item		Estimated Cost Increase
Membrane Unit		875,000
Installation		25,000
Electrical and I&C		180,000
Overhead & Profit	10.00%	108,000
General Conditions	10.00%	108,000
Contingency	5.00%	54,000
Construction Cost Increase		1,350,000
UW Overhead	8%	108,000
Total Increase		1,458,000

Cost Increase – Orange and Rockland Distribution System

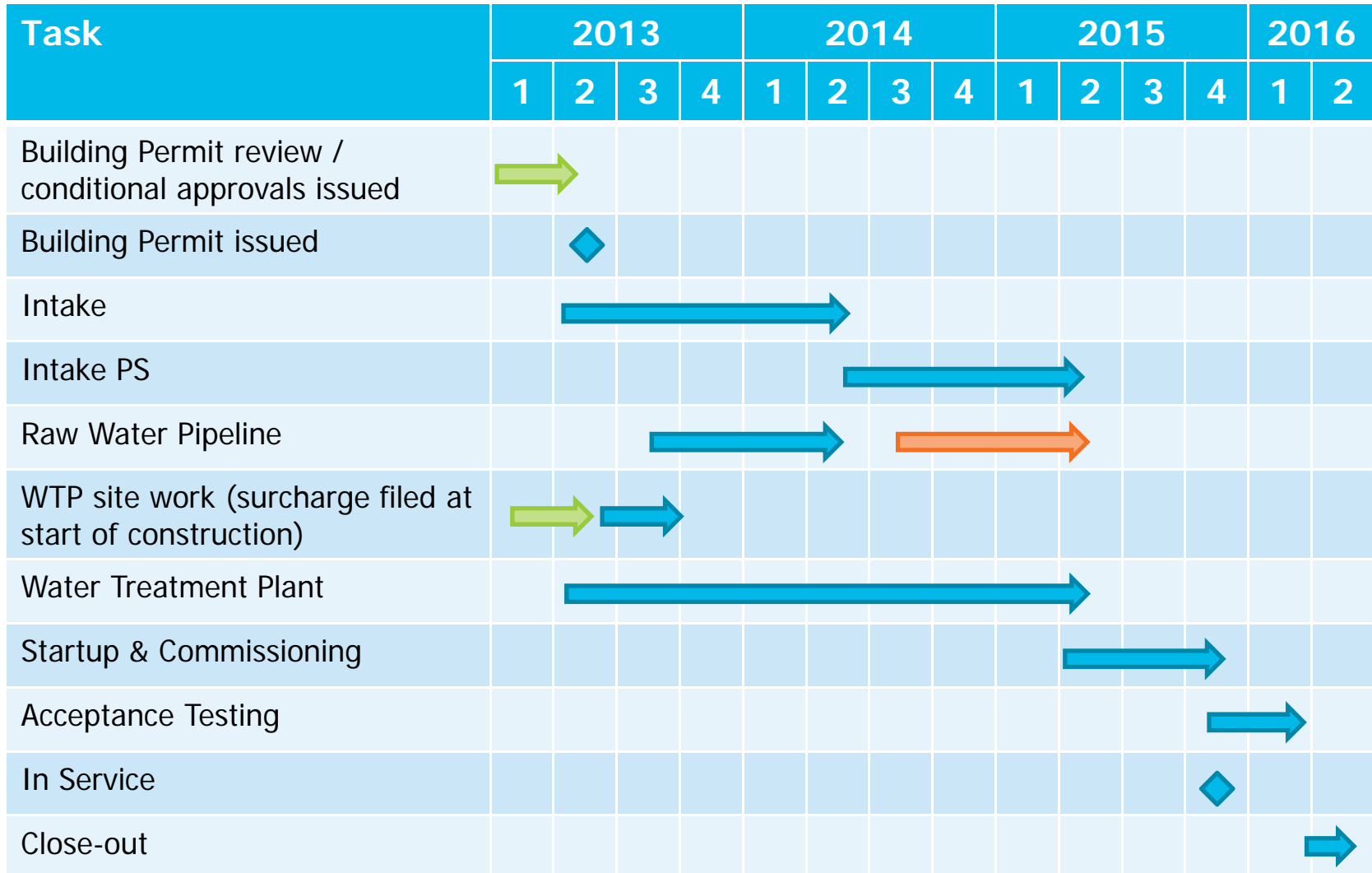
- **Due to limitations in its distribution system, Orange and Rockland will have to improve sections of its distribution system to provide electrical service the Intake and WTP.**
 - Intake is located at the far end of O&R's system, requiring substation improvements and re-conductoring.
 - WTP represents an increase in the system load, and will require some areas to be re-conducted.

Cost Increase – Orange and Rockland Distribution System, (cont'd.)

Item		Estimated Cost Increase
O&R WTP electrical system improvements		100,000
O&R Intake electrical system improvements		300,000
Overhead & Profit	10.00%	40,000
General Conditions	10.00%	40,000
Contingency	5.00%	20,000
Construction Cost Increase		500,000
UW Overhead	8%	40,000
Total Increase		540,000

Cost Increase – Construction Support

- The estimated costs for supporting the construction efforts have increased due to the scope, sequencing, and location of construction.



Cost Increase – Construction Support, (cont'd.)



Item		Estimated Cost Increase
Additional costs for 2013 – 2016:		
Construction Inspection		1,495,000
Construction Engineering (Shop drawings, RFI, etc.)		1,344,000
Communications & Outreach		1,310,000
UW Labor and Expense		592,000
Total Direct Costs		4,741,000
UW Overhead	8%	380,000
Total Increase		5,121,000

Proposed Finished Water Stabilization Testing



- **Additional pilot testing to evaluate finished water quality has been identified by the Project Team and CIRSEE:**
 - Determine the appropriate level of stabilization;
 - Identify the appropriate chemical doses;
 - Evaluate the stabilized finished water chemistry; and
 - Evaluate the corrosion potential of the stabilized water.
- **The additional testing will require up to 3 months of pilot operations depending on raw water boron levels.**
- **Direction requested:**
 - Conduct finished water stabilization testing and costs (presented on next slide).

Proposed Finished Water Stabilization Testing, (cont'd.)



Item	Estimated Cost	
	<u>Monthly Cost</u>	
Building	6,200	13,000
Operator	14,650	30,000
Lab (Discharge Analysis only)	2,500	5,000
Equipment	15,000	30,000
Utilities	15,000	30,000
Chemical	2,000	4,000
Pilot Process Modifications		50,000
Marble Tesing, Pipe Coupon/Section Testing and Analysis		250,000
Reporting (UW and DOH)		50,000
UW Labor and Expense		25,000
Project Development Cost Increase		487,000
UW Overhead	8%	39,000
Total Increase		526,000

Cost Increase – Summary



Item	Construction	Project Development	Construction Support	UW Overhead	Total
Intake Revisions	17,047,000	1,379,000		1,474,000	19,900,000
DEC / DOS Public Comments		915,000		74,000	989,000
Raw Water Pipeline	2,372,000			190,000	2,562,000
DOH Redundancy Requirements	1,350,000			108,000	1,458,000
Orange & Rockland Distribution System Improvements	500,000			40,000	540,000
Construction Support			4,741,000	380,000	5,121,000
Finished Water Stabilization		487,000		39,000	526,000
Total Increase	21,269,000	2,781,000	4,741,000	2,305,000	31,096,000
Project Budget / MTP					123,190,000
Revised Budget / MTP					154,286,000

Cost Increase – Summary (cont'd.)

	thru 2009	2010	2011	2012	2013	2014 *	2015 *	2016 *	Total
Project Budget / MTP	14,968	9,500	5,896	9,658	10,993	36,015	34,176	1,984	123,190
Actual/Forecast	14,968	8,898	8,603	7,552	24,152	67,108	19,132	3,872	154,286
Variance	-	(602)	2,707	(2,106)	13,159	31,093	(15,044)	1,888	31,096

- Actual / Forecast costs are revision to the MTP.
- 2014, 2015, and 2016 cost split to be revised as the construction schedule is updated.
- Costs are in \$1,000s.

Internal Milestones



Decision Point #1

- Submit revised EIS – 11/30/2010
- Pilot testing – 12/1/2010 to 10/30/2011
- Evaluate stakeholder landscape – 4/30/2011
- Decision Point – 6/1/2011

Decision Point #3

- Environmental Permits issued – 9/30/2012
- Evaluate stakeholder landscape – 10/31/2012
- Decision Point – 11/30/2012

Decision Point #2 (Revised)

- EIS deemed complete and draft permits issued – 1/18/2012 *
- Adjudicatory hearing determination – 3/31/2011 *
- Evaluate stakeholder landscape – 8/30/2011
- 50% Design – 9/30/2011
- Decision Point – April 2012 (target)

Decision Point #4

- Procurement of Construction Components – 12/1/2012 – 4/1/2013
- Building Permit Application – 3/1/2013
- Building Permit Issued – 5/1/2013
- Start Construction – 5/31/2013

Haverstraw Water Supply Project

STAKEHOLDER MANAGEMENT

Outreach and Education Activities

- **A continued comprehensive, multi-pronged communications strategy designed to educate the public and garner support.**
 - Print ads and open letters to customers
 - Radio and TV ads
 - Social and new media
 - Bilingual outreach and education
 - Op-eds and letters to local newspapers
 - Pilot facility open houses
 - Tours and presentations
 - Endorsements from business and economic development groups
 - 2,000 supporter letters to DEC, DOS, the Governor and elected officials

Public Hearing



- **Several hundred people attended sessions.**
 - Considerable employee, business and labor attendance
- **Project team secured industry experts, business leaders, employees, retirees and labor leadership to speak on our behalf.**
- **Opposition groups included Food & Water Watch, Riverkeeper and Sustainable Rockland.**
- **By the numbers:**
 - 7½ hours of public comments,
 - 90 total speakers: 58 disapproved, 32 approved

Key Findings of Tracking Survey

- Rockland County Residents have a favorable opinion of United Water, 65% favorable to only 13% unfavorable. Net Increase +7%.
- A majority (51%) of residents now believe the county should increase its water supply to meet the needs of a growing population,
- The Hudson River continues to be the main negative for why voters disapprove of the project.
- 52% agree with the statement, “I have confidence in United Water’s ability to treat Hudson River water to meet or surpass all safe drinking water standards” while 38% disagree.
- More people today prefer wastewater reuse than a year ago. 35% Hudson to 22% wastewater. Net decrease -18%.

United Water New York Haverstraw Water Supply Project

Steering Committee Update – July 25, 2012

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United Water New York Inc. Haverstraw Water Supply Project

Steering Committee Meeting

September 24, 2012

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Overview



- **Meeting Objectives**

- Brief/obtain guidance from Steering Committee on Project.

- **Project Delivery Options**

- **Value Engineering Results**

- **Depending on selected Project Delivery, discuss:**

- Membrane Filter Procurement

Haverstraw Water Supply Project

PROJECT DELIVERY

Project Delivery Options



- **Based on Project Delivery Evaluation (September 18, 2012), two appropriate systems for completing the detailed design and construction of the Project:**
 - Design-Bid-Build
 - Design-Build (EPC)

- **There are two (2) pricing mechanisms appropriate for the EPC delivery of the Project:**
 - Lump Sum
 - Cost plus with a Guaranteed Maximum Price

- **Most of the Design-Build projects delivered in the Regulated Segment have been contracted with an Integrated Design-Build company.**
 - AECOM
 - Black & Veatch
 - CDM
 - CH2M Hill
 - HDR

- **Most of the Design-Build projects delivered in the Regulated Segment have utilized the Cost-plus with a Guaranteed Maximum Price approach**
 - (e.g., UWNV Haworth WTP DAF, UWNR DIP, UWPA Hummelstown WTP, UWPA 6th Street WTP, UWNV Lake DeForest WTP DAF, and UWID Columbia WTP).

Project Delivery Options, (cont'd.)

Design-Bid-Build

- Cost
 - Typically low bid.
 - Requires significant engineering effort to obtain low bid.
 - Cost control obtained through detailed drawings and specifications.
 - No cost guarantee
- Schedule
 - Contractors typically work expeditiously, to expedite completion and final payment.
 - Schedule developed by contractor during bidding.
- Risks
 - Increased design error risk with owner involved in disputes between Contractor and Engineer.
 - Limited contractor input/value engineering opportunity.
 - Quality control through detailed drawings and specifications.
 - Performance not guaranteed.

Design-Build (EPC)

- Cost
 - Cost-plus with a Guaranteed Maximum Price ("GMP") allows for comparison of construction costs.
 - Cost control obtained through GMP and open book accounting.
 - GMP allows for "designing to the budget" since contractors are involved during design.
 - Costs guaranteed by EPC Contractor.
- Schedule
 - Schedule developed by EPC Contractor early in process.
 - Allows for management of schedule (and cash flow).
- Risks
 - Design error risk assigned to EPC Contractor.
 - Contractor input/value engineering occurs in design phase.
 - Quality control through performance guarantee and project criteria.

Project Delivery Options, (cont'd.)



Risk	Magnitude	Mitigation
Design-Bid-Build		
Contractor change order claims.	Impact project cost and schedule.	<ul style="list-style-type: none"> Detailed constructability review of construction drawings and specifications prior to award of contract to minimize risk.
Design omissions and inaccuracies.	Impact project cost and schedule.	<ul style="list-style-type: none"> Detailed constructability review of construction drawings prior to award of contract to minimize risk.
Increased coordination of separate bid packages.	Impact project cost and schedule.	<ul style="list-style-type: none"> Detailed constructability review of specifications and contract prior to award of contract to minimize risk.
PSC scrutiny of project cost increase as a result of the above.	Risk of recovery of costs above contract amount.	<ul style="list-style-type: none"> Proceed diligently, documenting efforts to control contractor claims.
Design-Build (EPC)		
Final permit conditions change the Project scope used to establish the lump sum D-B contract	Impact project cost and schedule.	<ul style="list-style-type: none"> Utilize a Cost-plus with GMP D-B contract that accounts for these revisions to adjust the GMP.
Quality of work compromised to achieve lump sum cost.	Impact project cost.	<ul style="list-style-type: none"> Prepare a detailed Project Criteria document. Utilize a Cost-plus with GMP D-B contract that allows for greater owner input on quality of work.
Public Service Commission challenges the D-B delivery approach.	Risk of recovery of Project costs.	<ul style="list-style-type: none"> Meet with PSC Staff to discuss delivery approach. Utilize a Cost-plus with GMP D-B contract approach that has been approved by the PSC on prior projects.

Project Delivery Options, (cont'd.)

- **Steering Committee direction requested on the selection of a project delivery system.**
- **IF Design-Bid-Build is selected, then direction requested on:**
 - Membrane Filtration System Selection
- **IF EPC is selected, then these items will be part of EPC Contractor's scope and detailed in its proposal.**
- **IF EPC is selected, the direction is requested on the type firms (i.e., Construction Contractors and Integrated Design-Builders) to include in the procurement.**

Haverstraw Water Supply Project

VALUE ENGINEERING REVIEW

Value Engineering Review

○ Value Engineering Review (“VE”) occurred September 19 – 20, 2012.

○ Value Engineering Reviewers:

- Lisette Provencher
- John Dyksen (Facilitator)
- Shucaï Zhu (UW)
- Bill Carr (UWID)
- Gerardo Cremer (Degremont)
- Tony DeLescinskis (UW)
- Craig Heisel (UW)
- Brian Graham (UW Services)
- Ralph Valencia (UW West Basin)
- Alan Weland (UWNY)
- Tony Saldutti – Construction / Constructability
- Walter Kaeck (Mueser Rutledge) – Geotechnical

Value Engineering Review, (cont'd.)

○ VE identified potential construction cost reductions for the following Project components:

– Intake:	\$ 3,020K
– Intake Pump Station:	\$ 2,028K
– Raw Water Pipeline:	\$ 896K
– Water Treatment Plant:	\$ 11,390K *
Total:	\$17,336K **

* Includes \$1,944K savings from actual Membrane Filtration System cost.

** Includes Contractor General Conditions, Contractor Overhead & Profit, and UW Overhead.

○ Revised Project cost: **\$123,041K**

- Based on \$137,377K Project cost presented in August 2012 at CEO-CFO Update.
- Includes \$3,000K in distribution system improvements (moved to UIRP in CEO-CFO Update).
- Assumes all VE cost reductions are feasible.
- Excludes engineering and permitting costs related to revisions.

○ Steering Committee direction requested:

- Proposed next steps:
 - Evaluate feasibility of identified reductions, and impact on FEIS and permit applications.
 - Review reductions with NYSDOH.
 - IF Design-Bid-Build, incorporate corporate feasible reductions into Project design.

Haverstraw Water Supply Project

MEMBRANE FILTRATION SYSTEM PROCUREMENT

Membrane Filtration System Procurement



- The procurement package for the membrane filters was issued in June. Proposals received from the following membrane suppliers or system fabricators, or both:

Supplier	Membranes	Skid	Proposal Submitted
IDI		X	Y (Dow and Torray membranes)
GE	X	X	Y
Pall	X	X	Y
Dow	X		Y (IDI skid)
Torray	X		Y (IDI and H2O Innovations skids)
H2O innovations		X	Y (Torray membranes)
Tonka Equipment		X	N

Membrane Filtration System Procurement, (cont'd.)

○ Membrane Filter Supplier Selection Criteria proposed at July 2012 Steering Committee Meeting:

- System cost
- System area
 - The system footprint impacts the size of the building and therefore the overall project cost. As such it is possible that a more expensive system that has a smaller footprint may result in a lower overall Project delivery cost than a less expensive system with a larger footprint.
- Membrane Module replacement cost
- Chemical use
- Energy use
- Warranties
- Installation track record
- Agreement terms

○ Budget amount: \$4,600K

- Based on conservatively sized unit used in Pilot (i.e. Pall).

Membrane Filtration System Procurement, (cont'd.)

	GE	H2O Innovations	IDI-Dow	IDI-Torray	Pall
System Cost (\$)	2,420,837 *	2,704,570	4,856,200 *	4,844,200 *	3,260,737
Membrane Module Replacement Cost (\$/module)	1,300	2,500	2,600	2,900	1,950
Total Number of Membrane Modules	288	156	192	168	240
Annual Chemical Use (\$/yr)	38,000	64,000	39,000	34,000	123,000
Annual Energy Use (\$/yr)	648,000	451,000	476,000	450,000	466,000
Net Present Value (\$)	3,538,221	3,492,751	5,825,200	5,775,200	4,892,493
(*) Other Cost Considerations	Requires revisions to building structural layout, approx. \$100K additional.	Fit in space allotted.	Requires revisions to building structural layout, approx. \$100K additional.	Requires revisions to building structural layout, approx. \$100K additional.	Fit in space allotted.

Membrane Filtration System Procurement, (cont'd.)

	GE	H2O Innovations	IDI-Dow	IDI-Torray	Pall
Warranties	Did not accept all warranty requirements.	Accepted all warranty requirements, and enhanced membrane warranty.	Accepted all warranty requirements.	Accepted all warranty requirements.	Accepted all warranty requirements.
Installation Track Record	Several installations of proposed membrane system.	Several installations of proposed membrane system.	No installations of proposed membrane system.	No installations of proposed membrane system.	Several installations of proposed membrane system.
Key Comments on Agreement Terms	<ul style="list-style-type: none"> •Several exceptions/clarifications, some of which could shift a moderate amount of risk UW. •Negotiating comments will effect system cost. 	<ul style="list-style-type: none"> •Clarification / Revision of requirements for storage of equipment. •Reduction in required insurance amount to \$10 M from \$12 M. 	<ul style="list-style-type: none"> •Minor comments related to technical scope. 	<ul style="list-style-type: none"> •Minor comments related to technical scope. 	<ul style="list-style-type: none"> •Several exceptions/clarifications, some of which could shift a moderate amount of risk UW. •Negotiating comments will effect system cost.
Offer Reverse Osmosis	Y	Y	Y	Y	N

○ Steering Committee direction requested:

- IE Design-Bid-Build, to obtain costs to package Membrane Filtration and Reverse Osmosis Systems.
- IE Design-Bid-Build, selection of the Membrane Filtration System to be included in the Project.
- IE EPC, assign Membrane Filtration System to EPC Contractor.



United Water New York Inc. Haverstraw Water Supply Project

Steering Committee Meeting

September 24, 2012

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United Water New York Inc. Haverstraw Water Supply Project

Steering Committee Meeting

November 6, 2012

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Overview



- **Meeting Objectives**

- Brief/obtain guidance from Steering Committee on Project.

- **Project Delivery Options**

- **Environmental Impact Statement and Permitting Status**

- **Property Acquisition**

- **Project Budget**

Haverstraw Water Supply Project

PROJECT DELIVERY

Proposed Recommendations

- **The Project Team met with a sub-group of the Steering Committee on October 25th to discuss the Project Delivery.**
- **Discussed key drivers for the project delivery decision:**
 - Schedule
 - Competitive Price
 - Competitive Design
 - Recovery of Project expenditures.
 - Familiarity with EPC
- **Consensus conclusion of Committee members:**
 - CDM should be retained as the EPC Contractor and provide a GMP.
 - Selection of CDM as design engineer based on competitive procurement.
 - Preserve Project permitting history and maintain continuity of design.
 - Technical capabilities and prior performance on UW projects.
 - Negotiation of price and contract terms is critical to ensure that the interest of the shareholders and customers are represented.

Key Drivers



○ Schedule

- Position to meet remaining PSC milestones to start construction by May 31, 2013 and have the facility in-service by December 31, 2015.
- Trigger the surcharge filing.
- Construction duration: approx. 30 months.
- Need for EIS and permit modifications.

○ PSC Approval/Recovery

- Competitive Price and Design: Obtained through procurement.
 - Contractor Led D-B: Competitive procurement of EPC Contractor
 - Progressive D-B: Competitive procurement of sub-contractors.
- Ability to maximize use of the design to date.
 - Contractor Led D-B: Risk of EPC Contractor not utilizing most of design to date.
 - Progressive D-B: Maximize use of design to date.

○ Familiarity with EPC

- Introduction of new players.

Contractor Led Design-Build Schedule



○ Prospective Construction Contractors:

- Kiewit
- Perini
- Pizzigali
- PKF Mark III
- Skanska

Task	2012		2013								
	N	D	J	F	M	A	M	J	J	A	S
Steering Committee Direction	◆										
RFP Preparation											
EPC Procurement											
UW Review Proposals											
EPC Selected											
Permit Modifications (Site Plan & NYSDOH)											
Permits / Approvals Obtained											
Construction Start											
PSC Construction Milestone											

Progressive Design-Build Schedule



Progressive Design-Build

- Negotiate a GMP as an amendment to CDM's existing agreement.
- Continue to progress design and permitting concurrent to establishing a GMP.

Task	2012		2013								
	N	D	J	F	M	A	M	J	J	A	S
Steering Committee Direction	◆										
PSC Briefing (if necessary)	■										
Design Revisions		■	■	■	■	■					
GMP Preparation / Negotiation			■	■	■	■	■				
GMP Accepted							■				
Permit Modifications (Site Plan & NYSDOH)		■	■	■	■	■	■				
Permits / Approvals Obtained					■	■	■				
Construction Start							■				
PSC Construction Milestone							◆				

Direction Requested and Next Steps

○ **Direction requested:**

- To retain CDM as EPC Contractor.

○ **If Steering Committee agrees with recommendation to retain CDM as the EPC Contractor:**

- Prepare a memo formalizing the decision-making process.
- Meet with CDM to discuss:
 - Proposed selection;
 - Methodology for path forward to establish GMP;
 - Value proposition (i.e., how customer's interests are served); and
 - Negotiating EPC Agreement.
- Meet with PSC Staff to provide project update and preview project delivery.
- Negotiate EPC Agreement and GMP.

Haverstraw Water Supply Project

PROJECT STATUS

Project Status



Activity	Thru Oct	N	D	J	F	M	A	M
EIS								
Submit RTC Sections	X	X						
DEC Review FEIS Sections	X	X	X					
Submit revisions to the DEIS		X						
FEIS accepted by DEC (target)				X				
Permits								
Submit revised DEC, ACOE, and DOS permit applications		X						
Final DEC permits issued (target)					X			
Final ACOE permits issued (target)							X	
Final DOS consistency determination (target)						X		
NYSDOH								
Submit Engineer's Report supplement		X						
DOH endorses Engineer's Report (target)			X					
Submit construction drawings and specifications						X		
Construction Approval (target)								X

Project Status, (cont'd.)



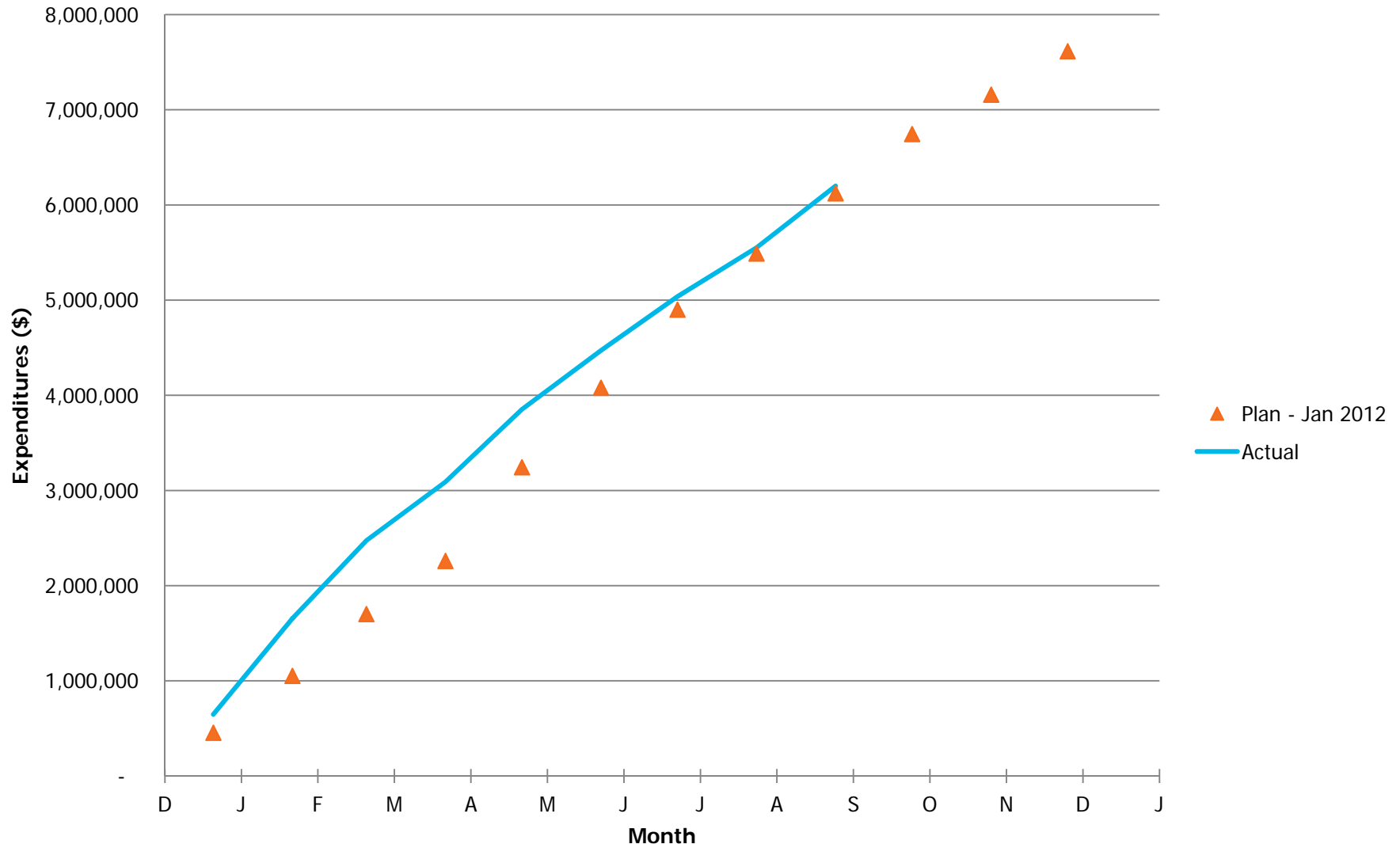
Activity	Thru Oct	N	D	J	F	M	A	M
Local								
Workshop meetings with Town Boards and consultants	X	X						
Site Plan and Zoning Variance applications submitted			X					
Haverstraw Boards review applications (target)				X	X			
Public Hearings (target)						X		
Site Plan and Zoning Variances approved (target)							X	
Architectural Review Board review						X	X	
Building Permit application submitted (target)							X	
Building Permit issued (target)								X
Property Acquisition								
Town of Haverstraw	X	X	X	X				
Joint Regional Sewer Board	X	X	X	X				
U.S. Gypsum		X	X	X	X			
Finished Water Mains Easements				X	X	X	X	

Haverstraw Water Supply Project

PROJECT BUDGET

2012 Project Expenditures

○ Project expenditures deferred from 2012 to 2013 to meet 2012 MTP.



Haverstraw Water Supply Project

APPENDIX

Haverstraw Water Supply Project

PROJECT DELIVERY

Project Delivery Objectives

○ Objectives to successful delivery of the Project:

- Achieve the PSC construction and in-service milestones (i.e., May 31, 2013 and December 31, 2015, respectively).
- Maximize recovery of Project expenditures in rates.
- Produce a quality work product that provides required quantity and quality.
- Meet requirements of all permits / approvals.
- Avoid litigation between contractors / consultants through single point of accountability.
- Manage risks by assigning them appropriately (e.g., construction risk borne by contractor not UW).

○ The above objectives lend themselves to Design-Build (or “EPC”) project delivery.

Design-Build Options



○ Engineer Led Design-Build (or “Integrated Design-Build”)

- Bring the most value to a project early in the design / engineering process.
- Allows the engineer to self-perform their core business design (i.e., permitting, procure the equipment and start-up / commissioning) and sub-contract the construction.
- Project design has been significantly progressed most Engineering firms will likely decide not to participate in the procurement, therefore, will not be considered in the evaluation.

○ Contractor Led Design-Build

- Construction contractors bring the most value to a project after the design and permitting has progressed by evaluating different means and methods to construct the project .
- Allows the construction contractor self-perform the majority of its core business, and sub-contract design, permitting, and start-up/commissioning
- Project design now relates to detailed design, and selecting the best construction method.
- Potentially 5% lower construction cost than Engineer Led D-B since construction contractors can self-perform aspects of the construction.
 - Use of an Owner's Representative will reduce / eliminate this savings.

○ Progressive Design-Build

- Selection of an engineering firm capable of constructing the Project to advance the design.
- When the design / Project has sufficiently advanced, negotiate a Guaranteed Maximum Price (GMP) as an amendment to the engineer's agreement.

Contractor Led Design-Build, (cont'd.)



Issue	Advantages	Disadvantages
Guaranteed Maximum Price	<ul style="list-style-type: none"> Established through a competitive procurement process to select an EPC Contractor. 	<ul style="list-style-type: none"> Likely require permit modifications or delay the issuance of final permits. Increase GMP if permits not modified.
Self-Perform Construction	<ul style="list-style-type: none"> Core business of construction contractors. Allows for increased schedule control. 	<ul style="list-style-type: none"> Difficult to administer with a cost-plus approach. Quality of work may be impacted.
Ability to achieve the remaining PSC milestones.	<ul style="list-style-type: none"> Contractually required to meet December 31, 2015 In-service milestone. Risk: Increased costs to meet milestone. 	<ul style="list-style-type: none"> Unlikely to commence construction by May 31, 2013 due to procurement process.
Maximize recovery of Project expenditures in rates.	<ul style="list-style-type: none"> Competitive procurement process used to select EPC Contractor. 	<ul style="list-style-type: none"> Risk: PSC does not allow recovery of design that is not constructed if the Project design is substantially altered by EPC Contractor.
Produce a quality work product that provides required quantity and quality.	<ul style="list-style-type: none"> Achieved through Project Criteria and an Owner's representative (i.e., CDM). 	<ul style="list-style-type: none"> UW has limited input / control over means and methods after EPC Contractor is selected, unless a change order is negotiated.
Meet requirements of all permits / approvals.	<ul style="list-style-type: none"> Achieved through Owner's Project Criteria and an Owner's Representative (i.e., CDM). 	
Avoid litigation between contractors / consultants through single point of accountability.	<ul style="list-style-type: none"> Risk is significantly reduced through EPC approach. 	<ul style="list-style-type: none"> Risk is not eliminated since third party (i.e., Owner's Representative is involved). Introducing a new firm presents unknowns / unfamiliarity, and increases risk of litigation.
Manage risks by assigning them appropriately (e.g., construction risk borne by contractor not UW).	<ul style="list-style-type: none"> Allows for a "fresh set of eyes" to look at the Project and bring additional innovation / savings. 	<ul style="list-style-type: none"> Risk of recovering costs associated with previous design. Delay and risk of permitting new design.

Contractor Led Design-Build, (cont'd.)



Risks	Scenario	Potential Mitigation
Recovery of Project expenditures	<ul style="list-style-type: none"> • PSC does not allow recovery of design that is not constructed if the Project design is substantially altered by EPC Contractor. 	
Permitting	<ul style="list-style-type: none"> • EPC Contractor's GMP is based on obtaining permit modifications. 	<ul style="list-style-type: none"> • EPC Contractor selection is based on UW's assessment of the required permit modifications. • EPC Contractor is responsible for obtaining permit modifications and meeting PSC in-service milestone with liquidated damages.
Schedule Control	<ul style="list-style-type: none"> • Procurement process results in missing PSC construction milestone. • Permit modifications delay construction start. 	<ul style="list-style-type: none"> • EPC Contractor is contractually responsible for meeting PSC in-service milestone with liquidated damages.
Guaranteed Maximum Price Changes	<ul style="list-style-type: none"> • Permit modifications not approved, EPC Contractor GMP or Scope requires adjustment. 	<ul style="list-style-type: none"> • EPC Contractor selection is based on UW's assessment of the required permit modifications. • EPC Contractor is responsible for obtaining permit modifications.
Scope Changes		
Cost Escalation	<ul style="list-style-type: none"> • Costs escalate after GMP accepted. 	<ul style="list-style-type: none"> • EPC Contractor's Contingency

Progressive Design-Build, (cont'd.)



Issue	Advantages	Disadvantages
Guaranteed Maximum Price	<ul style="list-style-type: none"> Established through a competitive procurement process to select CDM's sub-contractors. 	<ul style="list-style-type: none"> Risk of recovering CDM's fee since it was not established through a competitive process.
Self-Perform Construction	<ul style="list-style-type: none"> Allows for increased schedule control. 	<ul style="list-style-type: none"> Not CDM's core business. Difficult to administer with a cost-plus approach. Quality of work may be impacted.
Ability to achieve the remaining PSC milestones.	<ul style="list-style-type: none"> Contractually required to meet remaining PSC milestones. 	
Maximize recovery of Project expenditures in rates.	<ul style="list-style-type: none"> Progressive D-B used on UWNR DIP, which was approved by the PSC. A competitive procurement process used on the DIP to select CDM's sub-contractors. 	<ul style="list-style-type: none"> CDM's Fee not competitively established, but can use UWNJ Haworth WTP DAF Fee, which was competitively established and had a similar level of risks.
Produce a quality work product that provides required quantity and quality.	<ul style="list-style-type: none"> Achieved through Project Criteria. Increased involvement by UW in establishing the GMP. Other UW projects delivered successfully with CDM. 	
Meet requirements of all permits / approvals.	<ul style="list-style-type: none"> Achieved through Owner's Project Criteria. CDM involved in all permitting to date. 	
Avoid litigation between contractors / consultants through single point of accountability.	<ul style="list-style-type: none"> Risk is significantly reduced through EPC approach. Other UW projects delivered successfully with CDM. 	
Manage risks by assigning them appropriately (e.g., construction risk borne by contractor not UW).	<ul style="list-style-type: none"> Revising the scope through the VE, involvement of construction staff/contractors, and additional field data allows for design innovation/savings. 	<ul style="list-style-type: none"> Risk of no new ideas brought to the design.

Progressive Design-Build, (cont'd.)



Risks	Scenario	Potential Mitigation
Recovery of Project expenditures	<ul style="list-style-type: none"> • PSC challenges CDM's Fee since it was not competitively procured. 	<ul style="list-style-type: none"> • Reduce risk by using fee from DIP Project (approved by PSC) or UWNJ Haworth Project (competitively procured and awarded to CDM), which have similar risk levels to the HWSP.
Permitting		
Schedule Control		
Guaranteed Maximum Price Changes		
Scope Changes	<ul style="list-style-type: none"> • Project Scope is changed by UW. • Project Scope is changed by CDM. 	<ul style="list-style-type: none"> • Obtain approval of the Scope from all internal stakeholders to minimize the impact on UW's Contingency. • CDM's GMP Contingency.
Cost Escalation	<ul style="list-style-type: none"> • Costs escalate prior to accepting GMP. • Costs escalate after GMP accepted. 	<ul style="list-style-type: none"> • Expedite the timeline to establish a GMP to minimize the impact on UW's Contingency. • CDM's GMP Contingency

Haverstraw Water Supply Project

ENVIRONMENTAL IMPACT STATEMENT AND PERMITTING

Environmental Impact Statement



○ Final Environmental Impact Statement (“FEIS”) preparation underway. FEIS consists of:

- Responses to public comments (“RTC”), and
- Revisions to the Draft Environmental Impact Statement (“DEIS”) based on the RTC.

○ FEIS schedule / next steps:

- 19 of 27 RTC sections submitted to DEC.
- DEC iterative review of submitted sections: Ongoing
 - Frequent e-mail exchanges regarding submitted RTC sections.
 - Call to discuss DEC comments: 10/24/2012
 - Meeting with DEC to review project changes: week of 11/16/2012.
- Submit remaining 8 RTC sections to DEC: 11/14/2012.
 - Remaining RTC sections include radionuclide discussion and project changes as a result of the Value Engineering (“VE”) review.
- Submit revisions to the DEIS: 11/27/2012.
- DEC review submissions: Ongoing
 - Some comments on submitted RTC provided by DEC.
- FEIS accepted by DEC (target): January 2013.

Permit Status



○ DEC Water Supply Permit, SPDES Permit, Excavation/Fill Permit, and Water Quality Certification:

- Meeting with DEC to review project changes: week of 11/16/2012.
- Amended permit applications reflecting RTC submissions and project changes submitted to DEC: 11/30/2012.
- Final permits issued (target): February 2012.

○ ACOE Permits:

- Amended permit applications reflecting RTC submissions and project changes submitted to ACOE: 11/30/2012.
- 30-day public comment period: January 2013.
- Final permit issued (target): April 2012.

○ DOS Coastal Zone Management

- Amended permit applications reflecting RTC submissions and project changes submitted to DOS: 11/30/2012.
- Consistency certification (target): March 2012.

Permit Status, (cont'd.)



○ **NYSDOH Water System Improvements Approval**

- Engineer's Report supplement submitted: 11/9/2012.
- NYSDOH endorses Engineer's Report (target): December 2013.
- Construction drawings and specifications submitted (target): March 2013.
- NYSDOH construction approval (target): May 2013.
 - Not required for site work or structural work.

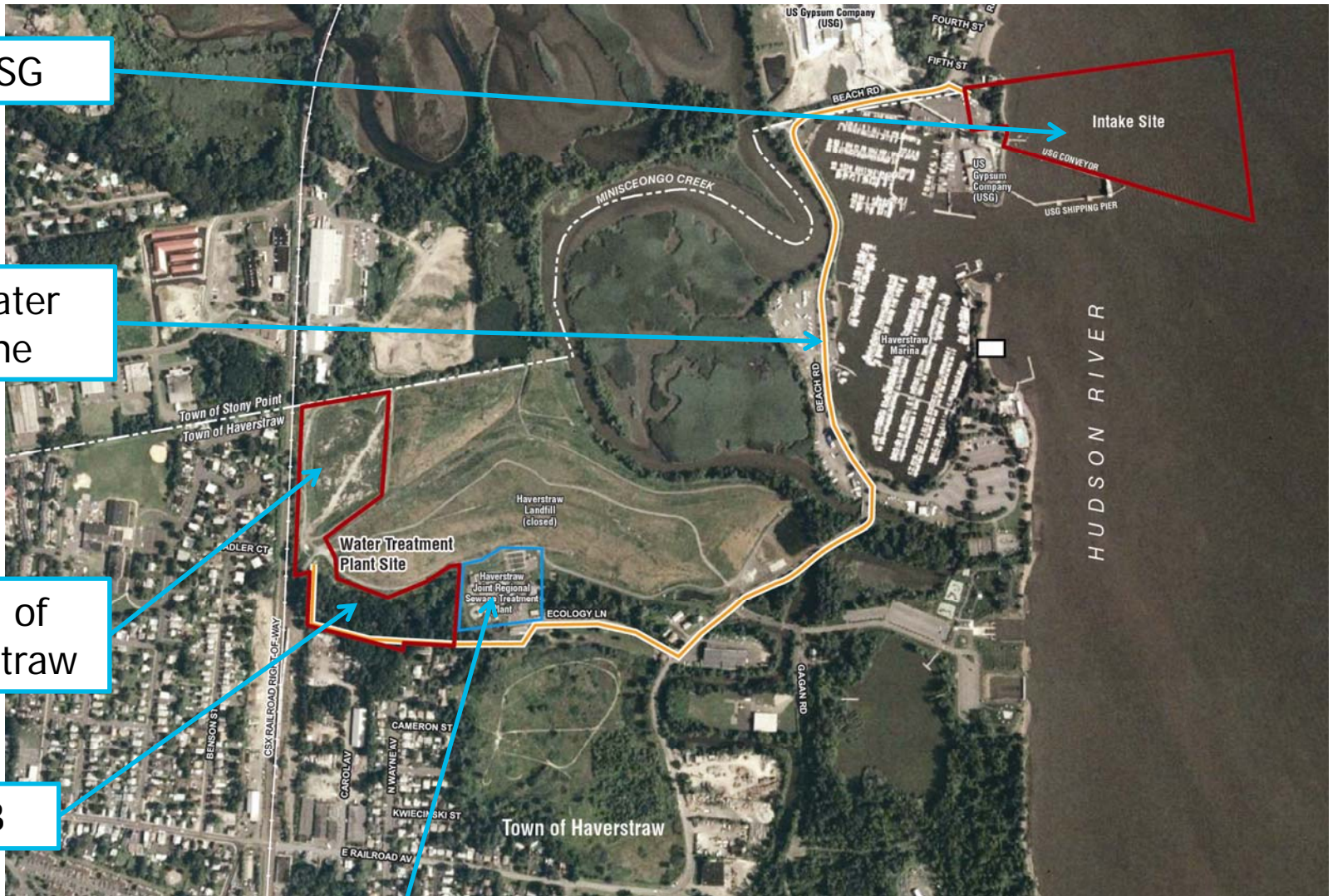
○ **Town of Haverstraw Site Plan, Zoning Variances, and Building Permit**

- Workshop meetings with Town Boards and consultants: November - December 2012.
- Site Plan and Zoning Variance applications submitted: January 2013.
 - Assumes CDM retained as EPC Contractor.
- Haverstraw Boards review applications (target): January – February 2013
- Public Hearings (target): March 2013
- Site Plan and Zoning Variances approved (target): April 2013
- Architectural Review Board review: March – April 2013
- Building Permit application submitted (target): April 2013
- Building Permit issued: May 2013

Haverstraw Water Supply Project

PROPERTY ACQUISITION

Property



Property Status



	USG	JRSB – Pipelines	DSB Realty – WTP Site	Haverstraw – WTP Site
Option Agreement	Executed, amendment pending	Pending	Executed, amended 12/2011	Pending
Option Term	Annual	N/A	2009 - 2013	2012 - 2013
Option Amount	\$50,000	N/A	\$400,000 plus annual property taxes (est. \$50K)	\$100,000 (proposed)
Purchase Amount	Fair market value	TBD, appraisal underway	\$1,100,000 (\$100,000 C&D cure amount)	\$1,050,000 plus \$200,000 amenity (proposed)
Appraised Amount	\$581,100 (2008, alternate intake location not included)	\$30,000 (estimate)	\$1,040,000 (2008)	\$1,150,000 (2008, adjusted to reflect increased purchase area)

Property Status, (cont'd.)



	Option	Purchase	Amenity	Total
USG *	190,000	726,100	-	916,100
Haverstraw	100,000	1,050,000	200,000	1,350,000
DSB	400,000	1,100,000		1,500,000
JRSB		28,753		28,753
Total	690,000	2,904,853	200,000	3,794,853

- Total property costs provided, including costs incurred to date.
- Closing on property purchases deferred to occur in Q1 of 2013 to allow for a May 2013 construction start.

* USG cost includes adjustment (i.e., increase in purchase area) for relocating intake.



United Water New York Inc. Haverstraw Water Supply Project

Steering Committee Meeting

November 6, 2012

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United Water New York Inc. Haverstraw Water Supply Project

Project Surcharge, Cost &
Schedule Update to D. Stanton

March 19, 2013

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PSC Rate Orders

- **"The Parties agree that it is in the customers' best interest and in the public interest for the Company to accelerate its development of new sources of supply."**
 - 2006 and 2010 Public Service Commission Orders. (*Source: 2006 and 2010 Joint Proposals, Sections XI and IX, respectively*)

Milestone	Date	Status
Project Description to PSC	1/15/07	☑ – Milestone achieved
Preliminary Conceptual Design	9/30/07	☑ – Milestone achieved
Submit DEIS and all required environmental permit applications	9/30/08	☑ – Milestone achieved
Complete pilot plant studies, if required	12/31/09	Deemed Inapplicable
Obtain Environmental Permits	9/30/10	Deemed Inapplicable
Complete 50% design	9/30/11	☑ – Milestone achieved
Begin Construction	5/31/13	
In-service	12/31/15	

PSC Rate Orders, (cont'd.)



In its rate filing, United Water requested that the costs for a long-term water supply project be recovered through the NWSS Surcharge. Instead, the Joint Proposal allows the Company to file for a separate surcharge mechanism to recover costs associated with a long-term major supply project at the time significant construction begins. The proposed surcharge is fully subject to Commission review and approval.

Source: 2010 Rate Order, pg 6.

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milestones or the hydrant maintenance schedules. The NWSS Surcharge can be modified no more than twice a year and its collections are subject to reconciliation. The surcharge will remain in place pending a Commission decision in United Water's next rate proceeding.

In its rate filing, United Water requested that the costs for a long-term water supply project be recovered through the NWSS Surcharge. Instead, the Joint Proposal allows the Company to file for a separate surcharge mechanism to recover costs associated with a long-term major supply project at the time significant construction begins. The proposed surcharge is fully subject to Commission review and approval.

During the next three years, United Water will continue to provide outreach and education to customers to increase their awareness and understanding of such water service matters as service quality, system improvements, water conservation and customer rights. The Company will provide its outreach and education plan to Department of Public Service Staff for annual review. The plan will include a detailed budget, specified outreach campaigns and program goals. Criteria for measuring the Company's achievements will also be provided.

The Joint Proposal includes reporting requirements and provides for the regulatory filings needed to implement its provisions.

PUBLIC COMMENT

Throughout this case, water customers, concerned citizens and local officials have provided their comments about United Water, its rates for water service and its plans for new water supplies. On April 22, 2010, a public statement hearing was held in the Town of Ramapo. The town hall hearing was well attended and the public provided heart-felt and well-reasoned

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term of the 2006 United Water rate plan. Staff also points out that the annual rate impacts are moderated by about \$3.5 million of MTRB and antenna revenue proceeds offset by an uncollected Underground Infrastructure Replacement Program Surcharge amount from the prior rate year. About \$2.3 million of this amount is applied as an offset to the first rate year and about \$1.2 million is applied as an offset to the second rate year resulting in moderated revenue increases of \$5.4 million (9.1%) for the first rate year, \$6.5 million (9.9%) for the second rate year, and \$5 million (6.9%) for the third rate. Given the relative flatness of these increases, Staff believes that a fully levelized alternative is not in the public interest because of its minimal additional benefits for ratepayers and its additional carrying costs.

Staff supports the reconciliation of revenues, water production costs and property taxes with the incentives provided for cost containment. Staff also supports the separate surcharge mechanism for United Water's long-term water supply project when significant construction begins. It sees no need to provide any milestone performance incentives because the Company is eager to recover its investment and can be expected to pursue construction in a timely manner.

Turning to the proposal's earnings and sharing provisions, Staff supports the 10.2% allowed return on equity capital and the 11.2% threshold for sharing earnings because the Company has agreed to a 45% equity capitalization ratio and has accepted a pre-tax cost of capital of 10.71% which is comparable to the pre-tax return the Commission recently adopted for Consolidated Edison Company of New York, Inc.

Addressing the Company's labor costs, Staff succeeded in reducing from 14 to 6 the number of new employees to be added to the payroll. For the first rate year, only three new

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Staff supports the reconciliation of revenues, water production costs and property taxes with the incentives provided for cost containment. Staff also supports the separate surcharge mechanism for United Water's long-term water supply project when significant construction begins. It sees no need to provide any milestone performance incentives because the Company is eager to recover its investment and can be expected to pursue construction in a timely manner.

Source: 2010 Rate Order, pg 21.

PSC Rate Orders, (cont'd.)



Staff also addresses the public comments. It supports the Company's efforts to implement a new, long-term water supply source and it is confident that the environmental review being conducted by DEC will properly consider the desalination plant and its alternatives. Staff highlights the Joint Proposal provision that does not allow the Company to begin to recover its costs for the new water supply source until significant construction has begun and the Commission approves the surcharge. It believes this should allay customer concerns about United Water receiving any premature recovery for the costs of the project.

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positions will be added for a water sample collector, an equipment calibrator and a metering superintendent. Thereafter, three positions are included in rates to provide a sufficient number of licensed water plant operators. Otherwise, United Water's pension and other post-employment benefits have been set in accordance with the applicable policy statement for these rates.

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With respect to water conservation, staff points out that the Joint Proposal requires the Company to provide effective customer education. It also notes that there is a program in place to replace old water pipes and reduce leaks and lost water. In response to the customer comments concerning the use of the Lake DeForest reservoir to serve water customers in New Jersey, Staff states that the contract establishing the cost allocation between New York and New Jersey customers does not expire until September 2013-just beyond the term of this three-year rate plan.

Finally, Staff states that the Joint Proposal recognizes the difficulties water customers face in the current economic downturn. The proposed rate increase for the first year is below the amount the Company originally sought and it reflects a

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long-term water supplies will emerge from the review process currently before DEC.¹³

Given the current evaluation of the desalination plant before DEC, there is no need, at this time, for us to conduct another examination of United Water's plans for a long-term water supply source. We note that the rate plan does not favor nor is it predisposed to a desalination plant, particularly if the Company's proposal does not survive the DEC review process. This is so because the rate plan does not include in rates for the next three years any of the direct costs for a desalination plant. All such costs the Company incurs will remain out of base rates throughout the rate plan's duration.¹⁴

In addition to the performance incentive we have rejected, Rockland County has asked us to consider the intercompany cost allocations for Lake DeForest in this proceeding. From the record, we are aware of the reservoir's established safe yield and the additional water flow to New Jersey above and beyond the water that New Jersey resolves to satisfy its riparian rights. The intercompany cost allocation agreement was previously approved by the Commission and it controls the amount of costs each affiliated company incurs and it does not end until mid-2013. We find that the record here does not establish a basis for us to modify, alter or revoke the existing agreement. The matters Rockland has raised may warrant consideration when a new contract comes before the Commission for approval; however, they

¹³ At a later date, we will have an opportunity to consider the costs, rate treatment and the prudence of the Company's actions.

¹⁴ The rate plan does provide that the Company can file for the collection of the costs for a new, long-term water supply source through a separate surcharge, but only if significant construction of the new facility begins which can only occur after United Water receives all the permits and approvals it requires.

Source: 2010 Rate Order, pg 22.

- ¹⁴ The rate plan does provide that the Company can file for the collection of the costs for a new, long-term water supply source through a separate surcharge, but only if significant construction of the new facility begins which can only occur after United Water receives all the permits and approvals it requires.

Source: 2010 Rate Order, pg 26.

PSC Rate Orders, (cont'd.)

4. On July 13, 2009, the Company filed with the Commission a petition requesting approval for recovery of the costs associated with a long-term water supply project (the "Long-Term Water Supply Project"), incurred up to the date of the filing, through the NWSS surcharge mechanism. The filing was withdrawn at the request of Staff on August 26, 2009. In accordance with this JP, the Company will file with the Commission for approval a surcharge mechanism to recover costs associated with the Company's Long Term Water Supply Project prior to its in-service date at the time significant construction begins. For purposes of this section, "significant construction" shall be initiated at the time physical activity to prepare the site is begun. The format of the surcharge mechanism will be substantially as set forth in Staff Witness Oreifej Exhibit __ (VZO-3), a copy of which is attached as Appendix 10. The Company's filing will include the following: (a) documentation of the expenditures that the company has made for which it is seeking the surcharge; (b) documentation of receipt of all required approvals and permits that have been obtained for construction of the full-scale facility; (c) a detailed project schedule showing the expected in-service date of the full-scale facility; (d) a detailed estimate of the facilities forecasted final cost; and (e) a detailed analysis showing how mitigating the carrying charges for the facility prior to its in-service date via implementation of the surcharge mechanism will impact customers annual bills as compared to not implementing the surcharge mechanism.

major supply project as the project is being developed. The Parties agreed that this method is generally in the best interest of customers because it prevents the accumulation of AFUDC during the long construction period associated with expensive major projects, avoids rate shock and provides a source of funds for the continued financing of such projects. The actual application of this method will be determined in the proceeding discussed in this paragraph."

4. On July 13, 2009, the Company filed with the Commission a petition requesting approval for recovery of the costs associated with a long-term water supply project (the "Long-Term Water Supply Project"), incurred up to the date of the filing, through the NWSS surcharge mechanism. The filing was withdrawn at the request of Staff on August 26, 2009. In accordance with this JP, the Company will file with the Commission for approval a surcharge mechanism to recover costs associated with the Company's Long Term Water Supply Project prior to its in-service date at the time significant construction begins. For purposes of this section, "significant construction" shall be initiated at the time physical activity to prepare the site is begun. The format of the surcharge mechanism will be substantially as set forth in Staff Witness Oreifej Exhibit __ (VZO-3), a copy of which is attached as Appendix 10. The Company's filing will include the following: (a) documentation of the expenditures that the company has made for which it is seeking the surcharge; (b) documentation of receipt of all required approvals and permits that have been obtained for construction of the full-scale facility; (c) a detailed project schedule showing the expected in-service date of the full-scale facility; (d) a detailed estimate of the facilities forecasted final cost; and (e) a detailed analysis showing how mitigating the carrying charges for the facility prior to its in-service date via implementation of the surcharge mechanism will impact customers annual bills as compared to not implementing the surcharge mechanism.

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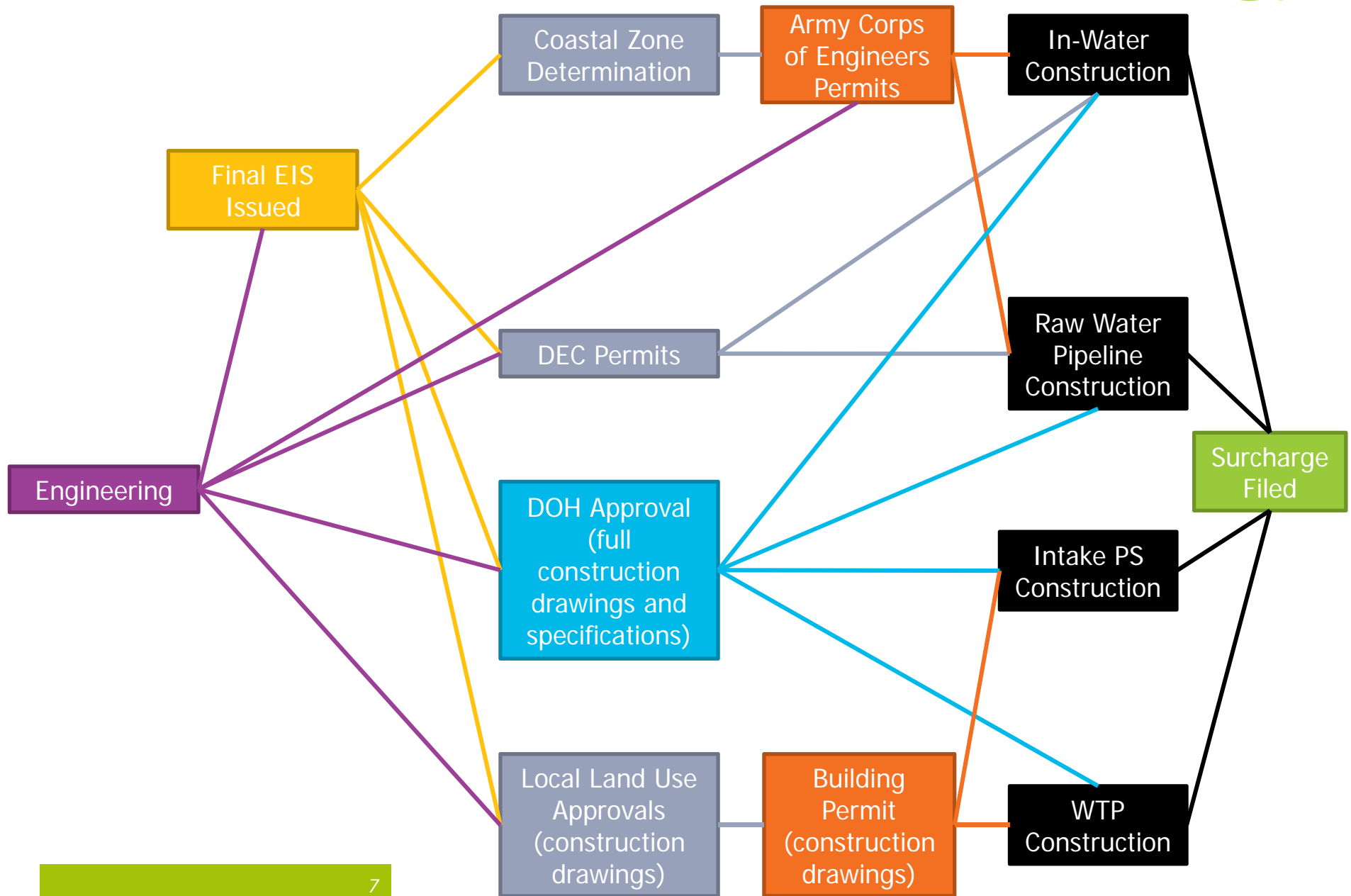
Critical Permits / Approvals for Construction



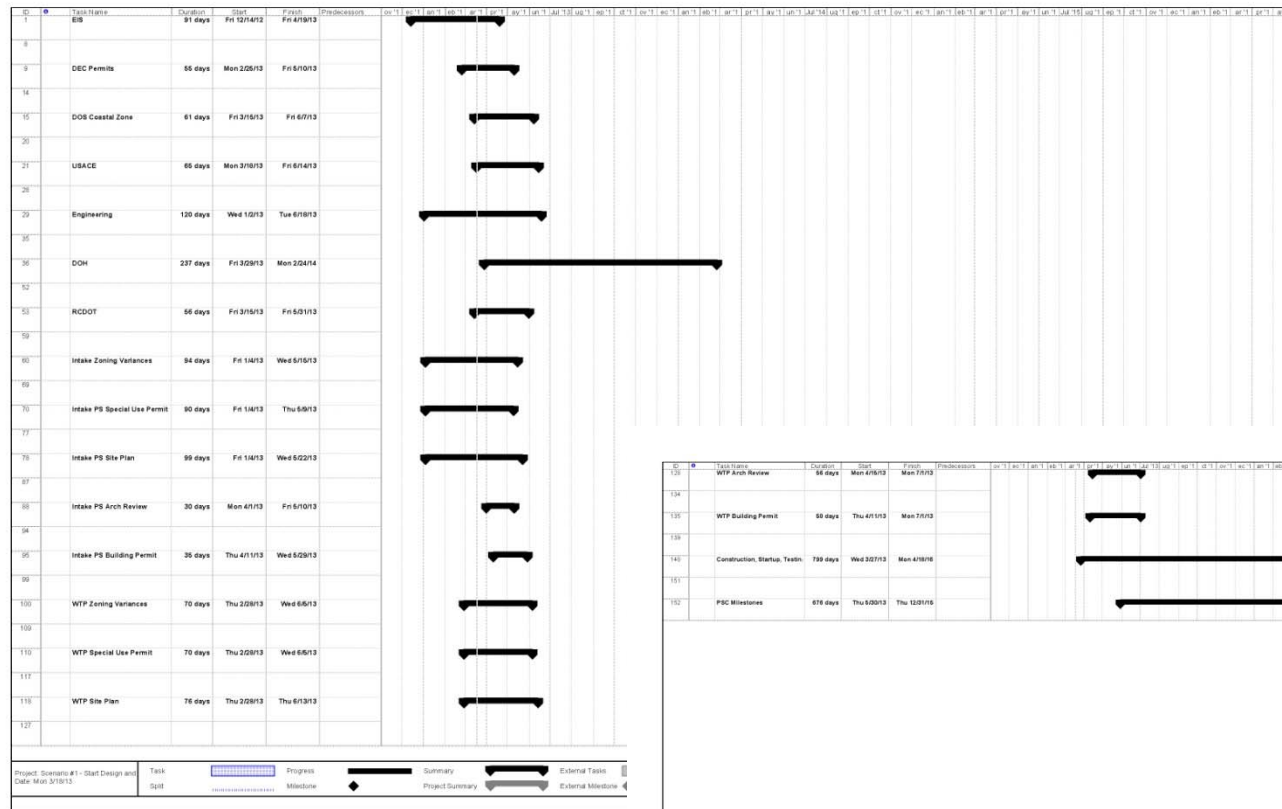
Federal	State	Rockland County	Local
<ul style="list-style-type: none"> •USACE: Permit under Section 10 of the Rivers and Harbors Act. •USACE: Permit under Section 404 of the Clean Water Act. •U.S. Coast Guard: Consultation and review with the USACE during the Clean Water Act Section 404 and Section 10 permitting process on potential impacts to navigation. •EPA: Approval of JRSTP's Industrial Pretreatment Program. 	<ul style="list-style-type: none"> •NYSDEC: Water Supply Permit * •NYSDEC: Water Quality Certification under Section 401 of the Clean Water Act.* •NYSDEC: Protection of Waters Permit under Article 15, Title 5.* •NYSDEC: Excavation or Placement of Fill in Navigable Waters Permit.* •NYSDEC: SPDES Permit for stormwater and dewatering discharges dewatering during construction. •NYSDOH: Public Water Supply Permit. •NYSDOS: Coastal Zone Consistency Determination. •NYSOGS: Easement, lease, or license for intake facility. •NYSOPRHP: Consultation and review in accordance with the New York State Historic Preservation Act 	<ul style="list-style-type: none"> •RCDOH: Public Water Supply •Rockland County Planning Board: Review and recommendation. •Rockland County Highway Department: Review the proposed local permits required for the Proposed Project. •Rockland County Highway Department: Road Opening Permit. •Rockland County Drainage Agency: Review the proposed local permits required for the Proposed Project. 	<ul style="list-style-type: none"> •Haverstraw Town Board: Special Use Permit. •Haverstraw Planning Board: Site Plan Approvals. •Haverstraw Planning Board: Subdivision Approval. •Haverstraw Zoning Board of Appeals: Variances. •Haverstraw Architectural Review Board: Approvals. •Haverstraw Building Department: Building Permits. •Haverstraw Highway Department: Road Opening Permit. •Stony Point: Review of local permits.

* - (Draft) Permit Issued

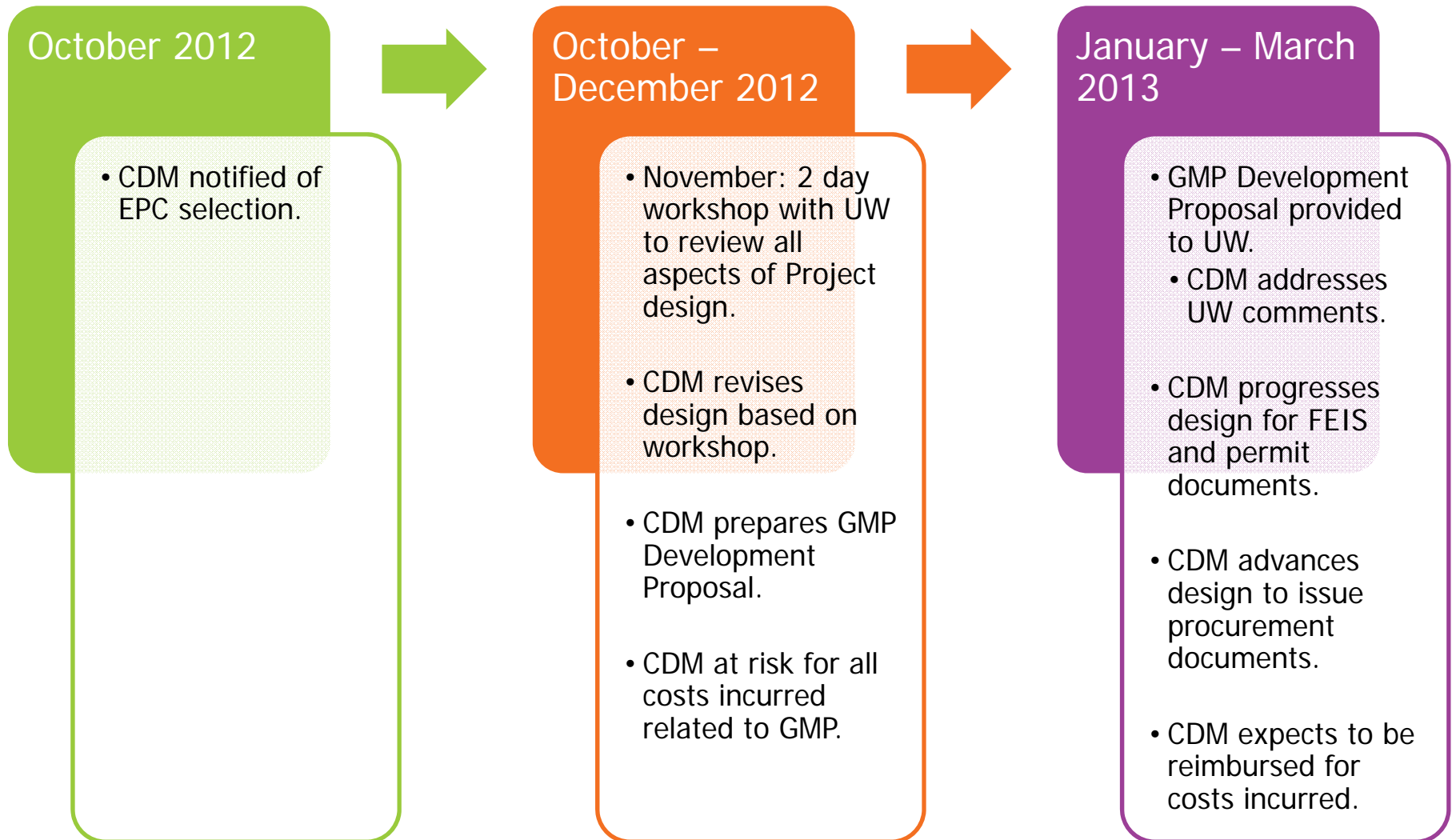
Path to Surcharge Filing



Project Schedule



Engineering, Procurement & Construction



Engineering, Procurement & Construction, (cont'd.)

- **CDM has provided a proposal to establish a Guaranteed Maximum Price (“GMP”) under an EPC Agreement. Proposed EPC Agreement provides for UW to issue:**
 - A limited notice(s) to proceed (“NTP”) for permitting, engineering, and procurement; and
 - A full NTP for the remainder of the Scope including GMP and construction.

- **Permitting Scope**

- DEC Permits
- NYS Department of Health
- Site Plan
- Zoning Variances
- Architectural Review Board
- Road Opening Permits
- Construction related permits
- Building Permit

Proposal Task	Amount
Permitting	463,000
Engineering	2,175,000
Procurement	485,000
Total	3,123,000

- **Design / Engineering Scope**

- Detailed design to permit, procure and construct project.

- **Procurement Scope**

- Installation subcontracts
- Equipment procurement

Direction Requested



1. a) Continue to progress the FEIS, permitting, engineering, and procurement tasks in parallel to commence construction by May 31, 2013;

or

1. b) Progress FEIS and DEC permitting. Then, once DEC permits are obtained progress remaining permitting, engineering, and procurement tasks to commence construction.
2. Based on the above direction, authorization of the GMP Development Proposal from CDM, and negotiate an EPC Agreement.

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